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These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

THESES

1863 (a)

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[1] Noteworthy calligraphy on title page.
[2] Title page stained.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1863 (a)

Thomas, J. F.	Pneumonia	50p.
Keller, Josiah G.	Spasmodic Asthma	26p.
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Kemp, William Wm. Thomas	Inflammation	33p.
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M.D.

Inaugural Dissertation

on

Pneumonia

Submitted to the Boards, Examiners & Faculty
of Physic
of the University of Maryland
for
the degree of Doctor of Medicine

by
J. C. P. Thomas
of
Maryland
1865.

Mb
18932

M.D.S.

Being required by the University of Maryland and other medical schools of candidates for graduation, a Thesis upon some medical subject. I with much diffidence, assume the task thus imposed.

And I purpose to consider the subject of Pneumonia, its symptoms, physical and general, Course of disease, Prognosis and Treatment.

Pneumonia, or inflammation of the substance of the lungs, is disclosed to us by the method of auscultation.

All the symptoms that give us the most sure information respecting the nature of the disease, its increase and aggravation on the one hand, or its abatement and diminution on the other; springing out of the actual changes wrought in the pulmonary —

pulmonary substance itself; and are disclosed to us by no other method, than that of auscultation. Technically speaking, Pneumonia may be either double, or single; or inflammation may occupy the part of one lung, or the whole of it: in other words, it may be partial, or general; but it does not affect all parts, or both sides, indifferently, or capriciously.
In the first place, it is said to be, (why, I know not,) greatly more common on the right side of the body, than on the left.
Of one hundred and fifty one cases of Pneumonia, collected by Andral, ninety were of the right lung alone; Thirty eight of the left alone; Seventeen of both sides at once; and in six the situation was uncertain.
And, in fifty nine other cases, or cited from other authors, so fully described as to

to leave no doubt about the nature and situation of the disease. Among these, the inflammation existed in the right lung alone in thirty one patients; in the left alone in twenty; and on both sides at once in eight. Twice taking together, we find two hundred and ten cases of Pneumonia; and there were = one hundred and twenty one, in which the right side was solely the seat of the disease; fifty eight in which the left; twenty five in which the Pneumonia was double; and six in which the seat was uncertain. So that at this rate Pneumonia is more than twice as common on the right side as on the left; and does not occur on both sides together so often as once in eight times. Again, with regard to the part of the lung which

which is most obnoxious to inflamation, there are remarkable differences. It is known, says Dr. Watson, that active idiopathic inflamation is more often found in the lower lobes of the lungs than the upper. Laennec seems to have insisted much on this subject, and though Dr. Watson agrees with him in the main, he thinks it somewhat exaggerated; but, the general impression, which statistics have left upon his mind is in favour of the correctness of Laennec's statement that Pneumonia generally commences in the lower lobes, and spreads upwards frequently to the superior lobes. Andral's statistical representation in respect to this question may be adduced also.

Of eighty eight cases of Pneumonia he found

that inflamation affected the inferior lobe forty seven times, the superior lobe thirty, and the whole lung at once eleven. In the language of Dr. Watson "Inflamation of the bronchi constantly accompanies inflamation of the parenchyma" he says there may be bronchitis without Pneumonia: but — Pneumonia without a corresponding extent of — Bronchitis is perhapsde never seen. A great many cases of Pneumonia are attended also with a degree of inflamation of the investing membrane of the lung: there is some Pleurisy. So frequently indeed, is this the case, that certain writers, Andral, among others, — call the disease by the compound name of - Pleuro pneumonia.

However, Pneumonia may and does sometimes occur without any concurrent Pleurisy.

The changes which the lungs undergo when

infamation affects their texture are ascertained by means of the physical signs; without which, we should be ignorant, not being able to see the important changes going on within the cavity of the Thorax; but Auscultation has come to our aid, and removed in a measure the obscurity in which it was engendered. If the ear be applied to the surface of the chest, with or without the intervention of the Stethoscope, and the portion of lung subjacent to that surface happen to be in the first stage of inflammation, that of engorgement, what do we hear, a peculiar crackling sound: the smallest, and finest possible kind of crepitation, which resembles the noise produced, by rubbing a lock of hair between the finger and thumb,

close to the ear. It is the crepitant rhonchus of Laennec: the minute crepitation or the crackling of Pneumonia of Watson. "And what an important sound it is!" = It is a direct symptom having immediate reference to the structure of the part. And in the language of Dr. Latham if we consider what the part is, and what the disease; the part, the lung, and the disease inflammation: we cannot too highly value this single symptom, which gives the first, and surest intimation that such a disease has begun, as tends to the disorganization, and the inevitable loss of life, unless quickly arrested by its counteracting remedy. When the inflammation is in its earliest stage, the minute crepitation, which announces commencing engorg

engorgement of the part, is heard mingling with the ordinary vesicular breathing; obscuring the natural sound, though it does not entirely cover it. But as the inflamation advances, the crepitation becomes more and more pronounced, until it entirely supercedes the natural sound. So long as the vesicular breathing overcomes the crepitation, we may conclude that the inflammation is slight. But, if the crepitation should in its turn, become predominant, if it should ultimately mask the murmur of respiration entirely that infallibly denotes the advance of pneumonia, and teaches us that it tends to pass from the first into the second degree. But, we are told that the crepitation does not long remain in any part.

As the case proceeds, the sound is less and less heard, and at length is not heard at all in that spot; and it may be succeeded by one of two very different things. It may be by the natural respiratory murmur again. When this is so, it denotes resolution. But, the crepitation may cease, and either no sound be heard at all in its stead, or another morbid sound, bronchial respiration, which denotes that the disease is growing more severe, and serious: that the lung is becoming or has become hepatized. In this stage, red hepatization, or second, we hear bronchial respiration, and bronchophony, or bronchial voice. We are told by authors that these morbid sounds are most plainly marked, where the number and size -

of the bronchial tubes involved in the hepatization are the greater. They are most distinct therefore, when inflamma tion occupies the upper part of the lung: or the central parts, which are called the roots of the lungs: and it extends thence to the surface. But, when the inflamation occupies the lower lobes alone, or is merely superficial or par tial, they may not be heard at all. Or if the hepatization should be so - general and complete, as to prevent the chest, on the affected side from expanding, in that case there will be no bronchial respiration heard, for the air in the large bronchi must be - stagnant. Bronchophony, however may remain. When there is bronchial respiration,

there is usually also dulness on per-
cussion. If a portion of crepitant and
permeable lung even a thin portion
should intervene between the inflamed
parts and walls of the chest, there
will still be resonance on percussion
though it will not be exactly the
natural resonance. If the hepatized
part come close up to the ribs, the
sound elicited by mediate percussion
will be flat or dead. There will generally
be heard in the sound lung, if the whole
of the other be engaged in the inflamation,
or in those parts of the inflamed lung,
that are healthy, puerile respiration.
and this is said by Dr. Watson to be a strong
confirming symptom that a part of the
breathing apparatus is spoiled, and that

the remaining part is endeavouring to compensate for its defiency. The period in pneumonia when no sound but bronchial breathing is audible, during respiration is a period of anxious and painful interest. We cannot tell whether the lung will revert gradually to its healthy state; or whether it is passing into the third stage, that of purulent infiltration; or gray hepatization. But should the lung revert gradually to health. What do we perceive? where fore a time was heard nothing but bronchial respiration, slight crepitation is again distinguishable at the end of each act of inspiration, as it increases the bronchial breathing and bronchial voice become less distinct, until they disappear altogether. Then

the vesicular murmur begins again to mingle with the crepitation, and finally supersedes it, and it is again restored to its healthy functions. Pneumonia having been traced by auscultation through its stage of engorgement, into that of hepatization, the question is naturally asked by authors, whether it can be traced further by that means. Dr. Watson is of opinion that it cannot with any degree of certainty, be ascertained by the ear, whether the lung remains in a state of hepatization, or whether it has passed into the third stage. Having considered, though very imperfectly, the physical signs, destructive and reparatory, which take place in pneumonia. I pass to the consideration of the general signs of that disease.

Which are pain more, or less severe on one side of the chest; dyspnoea; cough; a peculiar expectoration; and fever. The pain is said by authors to exist only in those cases in which pneumonia is accompanied by some degree of pleuritis. But such appear to be the most numerous cases. It is most commonly felt on a level with, or a little below one or other of the breasts; but it may exist in almost any part of the "Thoracic parieties. It is aggravated by cough; by a full inspiration; by sudden changes of posture, by pressure. But, in pneumonia uncomplicated with pleuritis, or any other disease there is a dull pain, or sensation of trouble, or tightness, or weight or heat on the affected side. It is, or was a

a common doctrine, that dyspnoea relates to the posture assumed by the patient; that the decubitus is on the side affected. The breathing is more impeded when the patient lies on the sound, than on the diseased side, but it is an admitted fact that patients having this disease almost all lie upon their backs; the decubitus is dorsal. The dyspnoea is said by authors to bear a direct proportion to the extent and degree of inflammation. But there are many exceptions to this. On some persons, we find the inflammation of a small portion of one lung attended with great constraint, or hurry of the respiration. On others, where a much larger portion of the lung is intensely inflamed the dyspnoea is but slight, from these facts,

it appears clear, that the degree of dyspnoea is not a certain evidence of the seriousness, or, rather of the extent and degree of the inflamiation. Pneumonia seated in the superior lobe of the lung gives rise to greater dyspnoea, than would be produced, were the disease seated in the lower lobe. The dyspnoea, varies much, both in degree and kind, in different cases. In some cases, it is so slight that the patients are not conscious of it. In others, it is so extreme, that the patients seems so occupied with breathing, that he is regardless of all that is going on about him. he is unable to lie down; can scarcely speak; his face becomes lividly red or pale, and is expressive of the utmost

utmost anxiety; his nostrils are expanded, his shoulders elevated, and all the muscles which are auxiliary to the diaphragm and intercostals, in full and evident action. In short, breathing is laborious this is the sort of dyspnoea which Dr Watson speaks of as being characteristic of obstructive bronchitis. When this accompanies inflammation of the lungs, we may conclude says Dr. Watson that bronchitis is superadded to that disease. The respiratory movements are sometimes simply frequent, short, or shallow, as if the air could not penetrate beyond the primary divisions of the bronchi. The dyspnoea of pure pneumonia is said by Dr. William Fairdner to be a mere acceleration of the respiration; without any of the staining inspiration observed in bronchitis

in cases where the two diseases are combined.
Dr. Watson says that he has repeatedly seen pa
tients affected with great extent of pneumonia
in both lungs, in whom extreme lividity,
and the respirations numbering fifty or
sixty in the minute, showed infallibly,
in amount, to which the functions of the
lung was interfered; and who nevertheless
lay quietly in bed, breathing without
any of the violent effort, or the disposition
to assume the erect posture, so constantly
accompanying the more dangerous forms
of bronchitis. In the language of Dr Watson
if this freedom from dyspnoea, and tra-
vious breathing be not uniformly char
acteristic of true pneumonia, it is be
cause that disease comparatively seldom
exists uncomplicated to some degree

of bronchial affection. Another common symptom which frequently occurs in the course of an attack of pneumonia is delirium, and it is a very ugly symptom. It tells us that the due arterialization of the blood is largely interfered with by the pulmonary affection. It denotes, in one sense, the quantity of mischief which is going on within the thorax: and it is a direct evidence that the pectoral mischief is leaving an impression through the circulation of venous blood upon the brain. The cough in pneumonia is dry in the begining, but in a short time it is accompanied by the expectoration of rust colored sputa which is so characteristic of pneumonia. But we cannot say where this expectoration is wanting there is no pneumonia, but we may say

where this characteristic expectoration exists, there we most surely have pneumonia. This sputa is composed of blood and mucus amalgamated together, which becomes of a rust color, and of a tenacious character, so tenacious indeed, that they adhere together so as to form a mass, of such a viscid nature, as not to separate from the vessel when inverted and shaked. This character of the sputa is of vast importance to us in having pneumonia from its first to its second stage. If this mass flows readily along the sides of the vessel when inverted, we may so long hope that the inflamation has not passed its first degree: but, if the mass become so tenacious and viscid, as not to flow

from the vessel, when inverted, or even shaked therefrom, we may conclude with some degree of certainty that the inflamation has reached its second-degree. And this is confirmed by the physical symptoms of the second-stage. The chest returns a duller sound, when struck, the vesicular breathing is abolished, and its place occupied by bronchial respiration. The disease is said to be at its acme; and the expectoration stands still, as it were, for a while. But, the inflamation recedes towards health, the sputa becomes less tenacious, and viscid, less red, or yellow, and resembles the expectoration of catarrh. But, if the disease continues to

to grow worse, the characteristic sputa may continue to the end: or, in this case there may be less expectoration, or, even none. Not, that I mean, that the mucus fails to be secreted, but, on account of its extreme tenacity, or the patient's debility, it becomes impossible to excrete it. It collects in the bronchi, trachea, and larynx, in succession: and thus fills up the air passages, and suffocates the patient. There is an expectoration described by authors, as belonging particularly to the third stage of pneumonia. It is of the consistence of gum water, and of a brownish red color; this is said by Andral to be like liquorice water or plum juice. The mere occurrence of this kind of expectoration is said by him to can announced the existance of the

third stage of pneumonia, which have been confirmed by the subsequent examination of the bodies of persons, who died of this disease. Dr Watson says in some cases, herpes sudis excreted in the third stage of this disease. Fever, the last of the general symptoms of pneumonia is recognized by the following symptoms, a quick pulse, preternatural heat of the surface of the body, with a sense of chilliness at the commencement. After describing seriatim, the symptoms, physical and general, of pneumonia, I shall consider them together in as much they exist together and serve to confirm or correct the indications drawn from each other. In the beginning of the first stage of pneumonia, we find pain in the side, which may

or may not have been preceded by rigors, the breathing constrained, cough without expectoration. At the same time, we hear by applying the ear to the chest, a small degree of minute crepitation, not sufficient, however, to mask entirely the vesicular breathing. The chest sounds well on percussion; and there is fever. After the disease has for a short time, two, or three days most commonly, new symptoms present themselves. The expectoration, which in the beginning was absent, or merely catarrhal, begins to assume its characteristic color and consistence. It is at first only moderately viscid, and its color is in proportion to the quantity of blood it contains. The minute crepitation continues to increase until it supersedes the respiratory murmur

the sound on percussion becomes less and less clear on the diseased side, and the pain less sharp than in the begining. The dyspnoea augments, as the short and frequent inspirations made by the patient clearly show. If the pain be acute, as in cases complicated with pleurisy, the patient is unable to lie on the affected side, because, the pain is naturally increased by pressure, neither can he lie on the sound side, because in that position, his respiration becomes so much embarrassed, that he lies almost always on his back. Here the disease often remains stationary for a while, and then recedes and terminates by resolution. When this is the case, we find the dyspnoea diminished, the dulness of sound disappears, the minute crepitation is gradually displaced,

by the natural respiratory murmur, the sputa become those of simple bronchitis, the fever subsides, and it finally terminates in health. But, at other times, instead of retrograding towards health, we find the pneumonia becomes more extreme, and may even terminate fatally without passing beyond this, its primary stage. But medical authors tell us that this is unusual. When the first stage of pneumonia does not terminate in resolution, and its symptoms continue to grow worse, it generally gives place to the second stage; which we know to exist, by its characteristic symptoms. The breathing becomes more constrained, & not accelerated than during the first stage, the voice becomes less free. The patient speaks in a hurried and panting

panting manner. The sputa become so viscid that it can no longer be detached from the vessel, when inverted and shaked. The sound given out by percussion on the side affected is decidedly dull. Crepitation still exists, though less fine in its character than in the outset, and without the admixture of pure vesicular breathing; and at some times ceases entirely, and no sound at all is heard. Or bronchial respiration is perceived in the part where percussion is dull, and bronchophony is also present, at this stage of the disease, and the decubitus continues to be dorsal. This state of disease, either terminates in death by apnoea, or recedes by resolution into health. When this will change takes place; the dulness on percussion diminishes; the bronchial breathing-

disappears; a course kind of crepitation is heard, at first alone, afterwards mixed with the natural respiratory murmur, which is finally heard alone; the sputa become again of a catarrhal character; the dyspnoea and fever diminish, and finally ends entirely. The physical sounds of the third stage are the same as those of the second until the effused matter begins to liquify, and then there is mucous rhonchus, but, even with the aid of auscultation, we are told by Dr. Watson, that it is impossible to determine whether the lung of our patient, is in the second, or third stage of inflammation. But if together, with the physical signs, we find, a face exceedingly pale, and, corpse like, we may suppose that the third stage is established, and we may be more

confident of it, if the prune juice expectoration, or puriform expectoration occur. Before I conclude, wh. at I have to say, of the course of pneumonia. I must briefly consider some of its complications, to two of which I have already incidentally refered, e.i. to its complications with bronchitis and plenrisy. It remains therefore for me to speak of its complication with typhus fever, which is not only of frequent occurrence, but also, the most dangerous of its complications; and even more so than pneumonia itself. It is when pneumonia is attended by low adynamic fever, and the inflamation is rather of a congestive, than of an inflamatory character, that this complication is said to exist, and the patient has what is generally denominated typhoid pneumonia. In the mode of attack, and the general symptoms-

by which it is ordinarily attended, there is no uniformity. It is usually ushered in by a chill, which is often of great severity and long continuance - the heat of the whole surface being to the touch much below the standard of health. The cold stage, says Dr. Condie is not unfrequently so intense as to destroy the patient before the slightest reaction occurs. Sometimes the disease is so violent in its attack, that the patient suddenly becomes cold and pulseless, lethargic, and often insensible without previous complaint.
During the cold stage, the respiration is short and oppressed, and a pain on one or other side of the chest is generally complained of; pain of the head is present in most cases; and not unfrequently severe pains are felt in the back, and limbs, and other parts of the body.

The muscular strength is greatly prostrated, and there is a sense of general uneasiness, and great restlessness. After a period longer, or shorter in different cases, but, usually protracted, reaction ensues, and the heat of the surface is restored. The heat is unequally diffused over the surface, some parts being decidedly hot, while others are comparatively cool. Occasionally, the skin becomes hot, dry, and harsh, while at other times it is relaxed, cool, and clammy. The pulse, when reaction ensues, becomes somewhat fuller, and more quick and frequent, but, in a very few, does it acquire any degree of tension, except, in young and vigorious subjects. It most commonly is soft, and yields to the slightest pressure. During the febrile stage, the pain, oppression of the chest, and difficulty of respiration are increased.

and generally a cough comes on within the first twenty-four hours, by which the pain in the thorax is greatly aggravated. When the cough is attended with expectoration the pain in the side is considerably relieved, and the oppression of respiration diminished. When the cough continues dry, or the expectoration is slight, all the more serious symptoms become aggravated. The matter expectorated, is a thick, tenacious mucus, often tinged with blood, but at other times of an ash, or dark brown color. The respiration is not only oppressed, but hurried, and irregular. The patients spirits are greatly depressed, he often utters deep and heavy sighs, and complains and complains of a sense of weight, or of constriction at the precordia, he is often agitated with nausea, and occasionally with vomiting.

The tongue in the first period of the disease is often clean, but red particularly at its edges; — in other cases, and perhapse most commonly it is thickly coated with a yellowish mucus, — which, in the progress of the disease changes to a dark brown, it becoming at the same time, dry, hard, and rough, often chapped. When this crust seperates, however, the tongue presents not unfrequently a bright red — colour, which occasionly pervades the fauces also. Where there is much pain of the head, there also, the patient exhibits from the — commenement, more or less delirum, and great restlessness. As the disease advances, the teeth, and the whole interior of the — mouth, become coated with a dark colored sordes, the breathing becomes shorter and more appressed, the strengthe more —

prostrated, the pulse smaller, and weaker, the patient sinks into a state of low muttering delirium, or of coma more or less complete; and the fatal termination takes place, as in the ordinary cases of typhoid fever. Having considered the description of typhoid pneumonia, as is most frequently presented to the medical observer, I revert first to the consideration of the prognosis of pneumonia, uncomplicated with other diseases, and then to that of typhoid pneumonia. In speaking of the prognosis of this disease, I can only therefore follow in the footsteps of those, who have written on the disease, and say, that the first stage is less dangerous than the second, and the second, than the third. Dr. Watson says it sometimes depend upon the extent of-

the inflamation, that, pneumonia in the first stage, and of great extent, is as severe as pneumonia in the second degree, but more circumscribed. Again inflamation of the upper lobes is also more perilous, than inflamation to the same extent of the lower. The information we derive independently of auscultation, as a prognostic sign, is ascertained from the respiration. Laboured, shallow, and frequent breathing, are all unfavourable symptoms. The pulse assists us but little, in forming the prognosis. But if a feeble pulse go along with great difficulty of breathing, and if it do not develope itself under venaesection, the prognosis is unfavourable. The supervention of delirium is also a very discouraging symptom. Where, the characteristic sputa become, ~~become~~ so viscid, and tenacious as

as not to be detached from the vessel when inverted. the prognosis is unfavourable; and, where it assumes a brownish, watery appearance, like plum juice, we should expect suppuration of the lung, and therefore form an unfavourable prognosis. Before I proceed to consider the treatment of pneumonia. I must take a passing notice of the prognosis of typhoid pneumonia; which should appear from Statistics to be unfavourable in most cases, though not necessarily fatal. But if I were asked, whether the general prognosis of typhoid pneumonia was favourable, or unfavourable; I should express the opinion, that it is unfavourable. Still it may, and doubtless does often terminate favourably; and I should be very unwilling to forego, the hope, and means,

in any given case, of a favourable restoration to health. In approaching the treatment of pneumonia, a disease of immense interest in itself, as well as its relations to other diseases. I can scarcely do more than point out the plan of treatment, which seems to me, from what I have been able to learn from medical authors, the Prof. of practice of the "University of Maryland", and other practitioners of medicine, with whom I have conversed, best qualified to insure a speedy, and safe restoration to health. Dr. Watson & others tell us, that the different forms of pneumonia, do not require the active measures, which prior to the use of auscultation were enjoined as proper in unmixed inflammations of the lungs, but he thinks the current is too-

strongly setting in the opposite direction. Such may, or may not be the case, but Lewis has undertaken to show, that venaesection has not much contol over the progress, or issue of pneumonia, in any of its forms: and in our own country, the same doctrine has been adopted by Dr. Bennet, who maintains that antiphlogistic remidies in general, and blood-letting in particular, are not only unsuitable, but even nutgui in all acute inflammations. Though, I do not profess myself a partisan of any extreme views in the matter, either theoretically, or practically; I certainly agree with Dr. Watson, and others, in opinion, that this is a mistake, and, that venaesection and tartar emetic are still the proper remedies, for the veginning of those flagrant forms of thoracic inflammation with which.

our predecessors were dealing when of the basis of experience, they put these remedies in force not only, but recommended them to others. If in the begining of the first stage of pneumonia in a patient, who was previously young, strong and healthy, we find the physical signs of that stage well marked, conjoined with high fever, a hot and dry skin, a hard firm pulse, pain of the chest, and restricted breathing. I should bleed my patient, and not only, as I believe without doing him harm, but to his great benefit and safety. And I should continue to take blood until some sensible impression is made upon the symptoms; until the pulse become softer, or if contracted until it becomes fuller, until the painful constriction is abated, and the dyspnoea relieved. And I should repeate the bleeding, or not accor.

according to the subsequent progress, and aspect of the case. And, I should as an ancilliary to the lancet, or, in less severe cases as a substitute for it, abstract blood from the surface of the chest, by means of cups, or leeches. And, though pneumonia of a sthenic, and inflammatory character, has become comparatively rare among us, so rare, indeed, as to have lead some practitioners of medicine to the belief, that general blood-letting is never necessary in the treatment of pneumonia. But, I suppose, they only intend to include those forms of the disease, which have occured to them, and they probably were more of a congestive, than inflammatory character. But, when the inflammation has passed beyond the first stage, and advanced into the second, Dr. Watson says, that blood letting fails to have

any direct influence upon the inflamed and solid parts, but nevertheless if duly moderated and under the guidance of the constitutional symptoms it may even be serviceable at this period, by diminishing the force of the heart and arteries, and thus tending to prevent the extension of the inflammatory process, by lessening the whole quantity of blood circulating through those portions of the lung which are still pervious, and thus relieving dyspnoea, and in this way putting the system at large into the condition most favourable for the reabsorption of the lymph by which the air tubes and vesicles of the affected parts have been blocked up. But in most cases of pneumonia as they now occur, they are either seen too late, or are of such a character as not to be benefited in the least =

but, rather, aggravated by general blood-letting, but, even in cases, where general blood-letting is inadmissible, we can not only resort to local depletion with impunnity, but, with manifest advantage. But, when the abstraction of blood is no longer expedient, or has been inexpedient, from the first, we have two remedies, in which, to repose our trust; and those are, tartarized antimony, and mercury. The tartar emetic plan, I believe with Dr Watson to be best adapted to the stage of engorgement, and the mercurial plan to that of hepatization. Tartar emetic is not given in this disease, to produce vomiting, and it appears very curious, that although given in a considerable dose, its first effects is usually — sickness, followed perhapse by purging, a repetition of the same dose, is in the majority

of cases borne without any further vomiting. It does not vomit some patients at all, others — it vomits two or three times, and then tolerance is established. If vomiting and purging go on, they may be checked by adding a few drops of laudanum to each dose. I should give tartar emetic in this disease at first in doses of one third of a grain every hour, gradually increasing the the dose according to circumstances, until as much as two grains were reached hourly; but should not exceed two grains. The above doses have been continued for many days without producing any injurious consequences. Dr Wilson tells us, that under this plan of treatment, the symptoms will often undergo a marked change, for the better in three or four hours, but this is not always the case, in

in some, however, the relief is not conspicuous for twenty four, or even thirty six hours. And Dr. Watson further tells us, that tartar emetic acts best, when it produces no effect except upon the inflammation itself,— e.i. when it does not cause vomiting, or purging, or a general depression of the powers of the system. I should continue its use in appropriate doses, until dyspnoea is appeased, and then discontinue its use, or give it at longer intervals, but if the inflammation show any disposition to rekindle, it must again be repressed by a repetition of the tartar emetic. When the inflammation had reached the second stage, or stage of hepatization, mercury is said by Dr Watson to be more worthy of confidence than tartar emetic.

It should be given in such doses as to bring the system as speedily under its influence as possible. I should give small doses of Calomel repeated at short intervals, a grain every hour, or two every two hours, or three every three hours combined with so much opium as may be requisite to prevent it from running off by the bowels, and continue its use until slight ptyalism is produced, as this appears to me ~~the~~ the most certain way of accomplishing our object. If the bowels prove irritable under the calomel, blue pill, or the hydrargyrum cum creta may be substituted, or it with advantage, and if the internal use of mercury be any non contra-indicated; or if slow in producing its specific effects, a liniment of mercury may be rubbed in, or the strong mercurial ointment.

And, if the inflamed lung has become solid, and impermeable, we must still regulate the treatment by the state of the general system, rather than the actual, or presumed condition of the lung, we still look for guidance more to the general symptoms, than to the physical signs. If the pulse continue steady, and firm, I should wait patiently the effect of the mercury. But, when typhoid raises, a pallid face, coldness of the surface, or extremities, a tendency to delirium, and (above all) a feeble, or irregular pulse proclaim that the vital powers are giving way, and the disease is assuming, or has assumed a typhoid condition, I should then administer stimulants, such as carbonat of ammonia, and wine, and direct the patient to be fed on milk, or beef tea. In short, I should treat-

the disease according to general principles, if inflammatory, I should resort to the antiphlogistic mode of treatment, if, of a congestive or typhoid character, I should be governed by the general state of the patient, and apply my treatment accordingly.
If in the begining of typhoid pneumonia, I should think it necessary to resort to general blood letting, which, I think is rarely, if ever required; I should do it with the utmost caution; and, I believe in every instance, where symptoms of a typhoid character early set in, and the loss of blood considered advisable, it is better to use cups to the chest, in preference to resorting to the lancet, but, in cases marked by great prostration, and extreme muscular debility. I should resort at once to the stimulant. —

plan of medication. Among the local remedies spoken of by authors, we find counterirritation by means of blisters, and they are said by Dr. Watson, to be applied — much too early in this disease; but I think they are oftener applied too late, than too early, and the reason I believe, is that the patients are generally seen after the period spoken of by Dr. Watson has passed, but, should the disease be seen in its outset, while there is considerable fever present, I agree with Dr. Watson in the opinion, that, they would add to the irritation, and distress the patient, and probably tend to aggravate the existing inflammation, but I believe in most cases as presented to the medical —

medical observer, the fever, or the general condition of the patient, is not of such a character, as to contra-indicate the use of blisters. And, when the fever is not so high, the skin not so burning, expectoration difficult, and the dyspnoea considerable, and a sensation of pain, or tightness, or oppression is experienced in the chest, then, Dr Watson, recommends, the application of a large blister. And, I agree with him both as to the time of application, and size of the blister. But, it seems, to me, that blistering, is too often neglected, or deferred by practitioners in this disease, — especially in the typhoid variety; in which, they are of undoubted utility, from the very outset, and should,

never, in my opinion, be neglected, or even deferred too long in any of the forms of disease under consideration; but should be resorted to as soon as the circumstances of the case will admit, and furthermore, I believe the number of deaths from this disease would be considerably diminished, were this remedy more generally resorted to, and earlier applied in the different forms of this disease; in short, without it, in the majority of cases, there is but little more of a favourable termination.

An
Inaugural Dissertation
on
Spasmodic Asthma
Submitted to the Faculty of the
University of Maryland
for the
Degree of Doctor of Medicine
by
David E. Keller
of
Maryland
A.D. 1863

A clear, concise and true definition of asthma is given by Walsh in his excellent treatise on thoracic diseases; as defined by this distinguished physician it is understood as "paroxysmal dyspnoea immediately dependent on more or less extensive obstruction of the smaller bronchi, caused by the contraction of the circular fibres, the immediate cause of this contraction is in turn under all circumstances reported irritation affecting the trunk or branches of the vagi or sympathetic nerve.

It is to the discovery of auscultation that we are indebted for our first out knowledge of the important

disease, before the period of this invaluable acquisition to medical science such cases of dyspnoea that could not be traced to their real origin in organic affections of the chest were thrown together under the head of asthma, and thus the dyspnoea occasioned by pleuritic effusion, by solidification of the tissue of the lungs, by excessive liquid secretion into the bronchial tubes, in a word, insufficient aeration of the blood in the lungs from these and other causes was often erroneously stigmatized asthma while it was a matter of great importance that the distinction should have been

made, now however by auscultatory means we may suppose the presence of many of these causes and with more precision establish cases of the disease formerly.

Asthma is decidedly one of the most painful and distressing of all the numerous diseases with which the human race is over afflicted, indeed the horrors of an asthmatic paroxysm far exceed any acute bodily pain, the feeling of impending suffocation, the agonizing struggle for breath of life, are so terrible that we cannot witness without sharing the sufferers distress.

The approach of a paroxysm

is generally preceded by a train of warning symptoms familiar to those who have once suffered an attack, these are indications of digestive disturbance, the patient is languid and irritable, he has headache impaired appetite and belching of wind or it may occur independent of these symptoms, in either case a sensation of discomfort and oppression may be the immediate precursor of the fit, most frequently we find the patient seized during sleep, retiring at night in an ill and uncomfortable mood he falls asleep, and soon a low

after midnight he is awoke
with a feeling of suffocation
or tightness about the chest, he
assumes the erect posture with
his head thrown backward,
seizing some solid object to give
greater vigor to his efforts, or
leans his head forward between
his hands, or bends himself on
his knees and elbows. He rushes
to the window or door and gasps
wildly for air, and it is
something remarkable that dis-
-tinguished officers in this way expose
themselves for hours to the rude
vicissitudes without suffering
ill consequences, the chest is
covered with perspiration.

the eyes are prominent, watery, staring and suffused, the face flushed, livid or pale, and the nostrils dilated, the countenance indicating almost intolerable distress, the pulse is generally frequent, small and irregular, the urine in the beginning of the attack is pale and copious and towards the close scanty and high colored; there is rarely present any cerebral disturbance; the paroxysm varies in duration from two to four hours when the symptoms begin gradually to decline and the patient falls into a slumber, in the morning he

arises feeling comparatively well, at least this feeling is not at all in comparison with the terrible suffering of the previous night, the following evening he many indicisions, and is very disappointed with the visit of another practitioner and so on for several days causing growing loss in violence until they have caused altogether, there remains however a marked predisposition to dyspnoea which may be excited by the most trivial causes

The physical signs are confined but may be so slight as to absence of inspiratory

murmur but sibilant or sometimes ronchus in its place, as signal by observed by the great Laennec if the patient be directed to speak without drawing his breath as long as he can so as to exhaust the chest there can be heard in the next line a three quick inspirations very well marked natural definite sounds this can only be heard in temporary elevation of thorax, but when we forced to decided should expect such elevation in anti-thorax.

This brings us directly to the consideration of the nature of dyspnea in another but

of this kind it was intended that the phenomena depended upon pneumonic congestion & and to establish the truth of this assertion the following is submitted - we accordingly find this condition fully developed without the existence of inflammation or pyemic disease, the rapidity of its attack and suddenness of its disappearance, it occurs very frequently in women such cases it is often excited by mental emotions, it is often promptly relieved by the use of antispasmodic remedies, and in the examination of cases after death there is no indi-

absence of traces of disease.
Of the existence in the bronchial tubes of circular fibres or little muscles there is no doubt - they have been exposed by Luschka and others. Dr Williams who has studied this subject well has demonstrated by experiments that the lungs and air tubes are actually contractile to a very considerable degree under electrical chemical and mechanical stimuli they contract slowly and steadily and as soon as the stimulus is withdrawn gradual dilatation follows it is asserted further the cirrhosis of the bronchial

made visibly and distinctly to contract by invading the pneumogastric. Not true until after invade the beautiful lace of pathology, by the contraction of these fibres the calibre of the tubes is diminished the air necessarily excluded from the lungs and hence the dyspnea.

Asthma is sometimes hereditary. It occurs most frequently in those persons advanced in life and is more frequent in males than in females.

In our diagnosis we must bear in mind the cardiac diseases which may occasion dyspnea. In the

absence of the physical signs peculiar to such diseases we can distinguish asthma - the most common are bronchitis, emphysema and organic affections of the heart.

When occurring simple asthma is rarely fatal it may be complicated with other diseases of a fatal tendency which indeed it often produces and is thus remotely the cause of death. It has long been a popular notion that asthma favors longevity, there is little foundation however for this idea. Some writers contend that asthmatics are perfectly exempt from phthisis, this is doubtful

it certainly is not uncommonly true "in Nature's way." One of my earliest friends had from time to time while we were schoolmates and long afterward the most exquisite fits of rheumatic asthma it caught cold he was between thirty and forty years old they wholly ceased whereupon he greatly congratulated himself, but they only yielded before a cough that he began in a few months to cough blood died in a few months more he died of well marked phthisis when the tubercles are recorded, at the age supposed to manifest the first

In reference to the treatment of certain patients differ considerably in their views and evincing very attention to the various plans and the same numerous remedies that have from time to time been suggested, I shall endeavor to pursue a course more in accordance with the general view of the disease that offered in a recent lecture from the Chair of Practice in this University. I will recite some little space in discussing the peculiar results of some individual practitioners.

It must be remembered that the complete cure of

Asthma has thus far baffled all efforts of the Profession and that the means employed are only to moderate the disease.

As in the treatment of all diseases that are at the same time chronic and paroxysmal, two objects are to be aimed at, first to mitigate or remove the paroxysm, secondly, to destroy or eradicate that predisposition which calls the disease into existence. If the subject is young, robust and plethoric and there exists any considerable degree of Congestion, Venesection will be attended

though the instances in which this recourse is necessary are few, We depend principally upon narcotics and antispasmodics; the following combination is valuable—

℞ Tinct Opii ℥ss
Oth Sulph Co. ℥j ss

of which sixty drops may be given every twenty minutes until the termination of the paroxysm. Should active inflammation contra-indicate the prescription will be inadmissible.

Flatulent colic is usually highly efficient anti-spasmodics and the Coffee Enema completely

Of the narcotics Stramonium Lobelia, Tobacco and Belladonna

In Coffee we have a diuretic remedy that is sometimes used with very striking results, given in strong decoction it is safe, pleasant and convenient, and is not without many favorites.

The herb Lobelia Inflata or Indian Tobacco has gained a wide reputation as one of the most effectual remedies we possess, it bears in its favor the testimony of numerous medical men of ability and experience, as have taken received its medical effects and cannot avoid admitting

that it is deservedly entitled to — all that has been offered in its behalf — the attention of the profession was called to the use of lobelia several years ago by the Hon. Dr. Cutter of Massachusetts who was induced to recommend it from the relief he obtained from its use in an attack of the complaint in his own person, it may be given in larger in doses of from two to ten grains, of the tincture from one to two drams — believes a better form of administering it is that of the fluid extract — it is more concentrated than the

tincture, and is free from alcohol, each teaspoonful represents half an ounce of the tincture.

The leaves of the Datura Stramonium a powerful narcotic, have for a long while been thoroughly identified with the treatment of asthma, its use was introduced into England from the East Indies where the natives are in the habit of smoking it for the relief of this Complaint. Its employment in febrile cases should never be preceded by depleting measures. Fatal consequences are recorded from its incautious use, indeed the author of the

introduction in England is said to have fallen a victim to it.

To obtain the best effects of Stramonium the form generally pursued is to smoke the dried leaves in a pipe or made up in the form of a cigar. The patient should be cautioned against carrying the use too far, when intoxication has freely commenced its action on the system is fully established and it should then be suspended.

Chloroform has been used with success in some cases and it will give relief.

Sir Walter Scott of this disease

"The effects of Chloroform inhalation commenced after the invasion of the fit and pushed to narcotism are variable. I have seen three kinds of result total abrogation of the spasm during the continuance of insensibility, with immediate return of the spasm on restoration of consciousness; gradual return of the difficult breathing after consciousness is restored; and suppression or at least mitigation of the convulsion for the time being. The last effect is the result of the drug but in the other cases the exhausting effect offended by Chloroform is sometimes more considerable

and more rapid than that obtained by any other agent.
Great quantities of Chloroform inhaled when the sensations pertaining to a fit are felt sometimes effectually wards it off and there is reason to believe that in some cases at least the repeated use of Chloroform after this fashion may eventually break the habit altogether. This Cure however only is hoped for when the disease is of some months."
If the attack be brought on by taking cold, Cathartics and Emetics in situations should be promptly employed.

In the second indication the treatment should be modified to meet the conditions presented when there is much fever. Bloodletting will benefit, if there is local inflammation in the tubes it should be treated as in the uncomplicated and when subdued, then meet the undue irritability of the pelvis.

The patient should be guarded against injurious influences in diet. No food should be administered in quantity and variety digestible. No meals should be taken at regular hours. He should receive in the condition in the order in, letting

every morning is highly approved of by Dr. Watson. it is important that the secretions should be properly regulated, to this end appropriate medicines should be given — when the patient's condition is anemic the preparation of iron should be given, when of regular bowel habits, Cinchona will be found useful

A great deal has been written concerning the effect of local influence on dentition and there seems but little doubt that such influence is not unfrequently sometimes illustrated by this disease. Some authorities positively on

large cities subject to the vicissitudes of constant climates will often find relief by change of residence to a country village or others by a change from sea-coast to city life, etc. again in removing from a moist to a dry climate or from warm to cold. At that time I saw at the Baltimore Infirmary an asthmatic patient and in questioning him in regard to his case learned the following he was from the state of Illinois for a number of years he had followed the ocean, and had made several trips to the West Indies and during his

stay there he enjoyed almost a perfect immunity from the complaint, yet in his home in Maine or in other cold climates his asthma always clung to him.

I do not think any rules can be formed to guide us in advising the patient in reference this part of the treatment, he must determine by experience what climate will best suit his case.

An
Inaugural Dissertation
on
Chillsu
Submitted to the Examination
of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor
of Medicine by
Henry Clay Kemp
of
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Anno Domini
1843.

Epilepsy

Epilepsy is a disease characterized by convulsions of a paroxysmal character with loss of sensibility and conciousness, without fever and usually followed by coma.

The symptoms may be divided into two classes. The premonitary, and those which occur during the paroxysm.

Premonitary symptoms.— There is great difference of opinion, as to the frequency of occurrence of premonitary symptoms; but all agree that they do sometimes occur. When they occur they differ greatly in character and

duration. Generally they are brief, merely allowing the patient time to select a favourable position, and often not long enough for that. Sometimes they consist only in a general alteration of feeling; the patient being more gloomy and irritable, or more depressed than common, or on the other hand, unusually elevated, and cheerful. Sometimes there is confusion of thought, or failure of memory, dullness of hearing, dimness of vision and often an apparent state of revery, in which there is a fixed and vacant look. There is also sometimes strabismus, and among the

most common symptoms of premonition is an altered, or prevented preception of impressions and sensations, such as temporary blindness, deafness, double vision, optical illusions, noises in the ears, the preception of unusual flavours and odours, and feelings of pain or numbness in the limbs.

Sometimes there occurs a peculiar sensation, or sign known as the aura-epileptica, which is described, as a gentle breeze, or the ripling of a small stream of cold water, or the passage of a current of cold air over the part.

This sensation is a characteristic sign of an approaching paroxysm. When it occurs it generally commences at some point distant from the brain, and gradually works its way towards that organ; but in the vast majority of cases nothing that can correctly be called aura-epileptica occurs. In fact in the majority of cases no premonitions at all occur.

After a variable length of time, sometimes not more than a few seconds, and in others lasting for hours; the patient utters a shrill startling cry, and falls down insensible. This cry is described as

being terrifying and peculiar, and animals are sometimes said to be startled by it. If once heard it can not be easily forgotten. The muscles of the extremities are thrown into alternate contractions and relaxations. The arms and legs are thrown violently and wildly about, and the patient will often injure himself, or those surrounding him, if he is not restrained; but while the muscles of the extremities are thus alternately contracted and relaxed, those of the body are rigidly contracted, and the body is often bent backward. One side of the body

is often more affected than the other. The tongue being protruded, and the jaws convulsively closed is often seriously wounded. The eyes are sometimes closed, but generally they are widely open with a fixed stare. They are always insensible to impressions of light. Sometimes they roll from side to side.

The face is livid as a general thing, and the veins are distended. Impressions which in health are most powerful, seem not to be felt at all. The most pleasing odours, the most pleasing sounds make no impression, and operations which inflict the most intense pain, do not seem to affect the pa-

tient in the least. Respiration is difficult, and from the rigid contraction of the walls of the chest, the blood seems to be insufficiently oxygenated.

There also appears to be some obstruction about the glottis, probably owing to spasmodic constriction, this is probably in part the cause of the dark suffusion of the face. The struggle in the throat causes the air to be intimately mixed with the mucous, this causes the appearance of the foam at the lips. The pulse is generally weak, irregular, and very frequent, while the heart palpitates violently and often tumultuously. In some instan-

ces in males there is involuntary erection, and seminal emissions. Sometimes there is also involuntary evacuation of the bladder and rectum. After a variable length of time, but generally brief the contractions cease; the limbs become composed, and the patient breaks into a profuse perspiration; the features become shrunken and pallid, and nothing remains of the previous disturbance, except perhaps a slight noise in respiration. At length consciousness gradually returns, attended at first with some confusion of thought; the patient sitting up, or rising on his, or her feet, looks around with an astonished, vacant or stupefied air.

which is highly characteristic of the disease. But frequently the disease is followed by unpleasant symptoms. The duration of the paroxysms vary greatly; but the average duration is said to be from five to twenty five minutes. Sometimes it continues for several hours, or even days; but then there is never a steady perseverence of the attack; but rather a succession of attacks, with intervals of quiet coma, as if the whole were a succession of attacks, rapidly following each other, so that the second stage of one is not fully over before the first stage of the other commences.

The symptoms which follow a paroxysm are various. As we have seen the patient may return to his ordinary condition. Very often he falls asleep, and awakes in the possession of his faculties, feeling as well as he did before the attack, except that he is a little sore from the violence of the muscular contractions, and bruises he has received.
In other instances he is affected with headache, vertigo, mental confusion, and sometimes though rarely nausea and vomiting. But these are not the only evil effects that follow a paroxysm. The patient instead of getting off thus lightly, as soon as the

violence of the paroxysm is over, sinks into a deep coma, or stupor, lasting for hours, or even days. Sometimes an epileptic paroxysm is followed by temporary insanity, which may amount only to slight mental alienation, or to positive insanity, or violent mania. The latter is termed epileptic fury.
These symptoms subside as a general rule in a few days at most. Sometimes although rarely the maniacal symptoms precede instead of following the paroxysm. The patient upon emerging from a paroxysm is sometimes found to slightly paralysed. The interval between the commencement and ending of a pa-

voyspen is a complete blank to the patient, and he only knows that he has had a fit by his soiled, and torn clothes, and by his bruises, the significance of which previous experience has taught him.

Death sometimes occurs during the paroxysm, either from apoplectic congestion, or suspended respiration, but this is of rare occurrence. As described above, the disease constitutes the Grand Mal of the French. But the disease does not always occur in so violent a form. Instead of coma, convulsions &c; the attack is merely vertiginous; the patient if standing will perhaps fall; but if sitting, it may

pass off almost without notice, and the patient resume his occupation just where he left off. Sometimes the disease may only apparently affect an arm, or leg, that is the patient may stand erect, while an arm, or leg is convulsively moved. This form may continue for two or three years. Gradually becoming more severe. This form is called by the French petit mal.

Epileptic attacks may occur at any time during the twenty four hours. Sometimes they occur at night, while the patient is asleep, and he may not be aware, that he has had a fit, unless he has in

some way wounded himself. Sometimes the paroxysms occur altogether during the night, the sleeping posture seeming to favour involuntary muscular contractions, or else causing it by influx of blood to the brain.
The periods of attack are not less variable than their degree of violence. Sometimes there are intervals of months, or years, in which case the paroxysms are apt to occur at gradually diminishing intervals, or vice versa. The paroxysms sometimes although very rare recur at regular periods, in which case it is often connected with ma-

various poisons, or with the menstrual function in the female. Although the patient may have apparent good health during the intervals between the paroxysms, yet they generally present some peculiarity. They are for instance, headstrong, obstinate or capricious, determined in what they will; but having no stability. Their memories are often feeble, and defective, not being able to fix their minds on any one course of study. This may be owing in part to the manner in which almost all epileptic patients are indulged from their youth up;

but it is no doubt also owing in part to the effect the disease has on the brain.

The course of Epilepsy is one of deterioration. The paroxysms if at first mild, are apt to become as the disease advances more and more severe, and more frequent. But this is not the only change; the brain begins to suffer, and its functions become more and more deranged during the intervals between the paroxysms. The memory and intellect become feeble, and the patient gradually approaches idiotcy. The altered condition of the brain often shows itself upon the exterior; the features become

rougher, and less intellectual, and more sensual. The form also often becomes altered; the patient loosing that erectness of carriage which once characterized him. The gait too sometimes becomes onesided, probably owing to loss of strenght in that side.
At lenght the patient sinks into a state of imperfect imbecility. During the progress of imbecility, the motor power shows signs of being affected, by the one sided position of the head, and rigid contraction of some of the muscles, and consequent distortion of the features. Still with all these changes the organic functions

seem to suffer very little. Digestion and nutrition are vigorous. The generative function remains unimpaired; the female still continues to menstruate, and sometimes becomes pregnant. The mental change may be accomplished in a few months, but generally it takes years to do it, and frequently epileptic patients live to old age without these changes being very evident.

Imbecility is said to make more rapid progress when the disease begins before puberty, than it does when it commences after that period. Its rapidity depends also upon the frequency of the paroxysms. It

also makes more rapid progress in those whose habits tend to lower the general tone of the system, such as the habitual use of alcohol and opium, &c. Sometimes a patient will live to an old age without any of these symptoms of imbecility making their appearance, showing that the disease does not necessarily produce insanity or idiotcy.

Morbid appearances— The morbid appearances found in cases of death from epilepsy are various. The brain has been found in various states; thus it has been found perfectly healthy, and it has on the

other have been found presenting almost every variety of lesion, which it is impossible in all cases to determine, whether they stood in relation as cause or effect. Lesions have also been found in other organs, such as the liver, lungs, heart and alimentary canal. But these lesions do not always depend upon epilepsy; but upon other diseases, to which people labouring under epilepsy are as subject as anyone else.

In cases in which the patient has died during the paroxysm, the brain appears very much congested being of a deep red or violet

hue. In cases in which the patient has lived to become imbecile the brain is often found in various stages of chronic inflammation; the white substance being softened, with the vessels injected. Other conditions are sometimes found upon which the disease may have, and probably did depend, such as thickening of the bones of the cranium, exostosis, and depressions of bone, dependent upon external violence, and tumors within the cranium, pressing upon the brain. Hemorrhagic effusions may also cause it.

Causes.— The causes of epilepsy may be divided into predisposing and exciting. Predisposing causes.— The predisposition to epilepsy is said to be hereditary in some cases. The time of life has some influence over it. It occurs more frequently before the age of puberty than after it. It rarely ever attacks for the first time people of old age. One reason why it attacks children most frequently, is because the nervous system is more irritable then than at any other period of life, and therefore more easily thrown into disorder by disturbing causes. The charge

which the system undergoes at puberty are thought to have some influence in producing the disease. Males are said to be more frequently affected than females. Anything calculated to lower the general health may prove a predisposing cause.

Exciting causes.— Of the exciting causes the most frequent is perhaps direct injury done to the brain, that is external violence, causing depression of bone. This may act by direct lesion or by the resulting inflamation. Other causes are malformation of the bone, or spicula of bone projecting into

the brain, cords, or membranes of the bones of the head. Whatever disturbes the functions of the brain, or strongly excites them may cause the disease. Exposure to the direct rays of the sun may act as an exciting cause. Violent exertion, either mental, or physical may cause it. Excesses of all kinds act as exciting causes, such as masturbation, venerial excesses &c. The forcing off to early mental culture may also cause it. It is said to be caused by the principal of imitation sometimes, especially in girls just from

seeing others in a paroxysm.
Pregnancy, the poison of syphilis, irritation of the stomach, or any other part of the alimentary canal, and in fact irritation of any organ sometimes act as an exciting causes.
Diagnosis.— The only affections with which epilepsy is likely to be confounded are, Apoplexy, hysteria, and convulsions depending on certain forms of intestinal irritation, like convulsions depending on meningitis, and in children dentition.
Generally there can be no difficulty in diagnosing epilepsy from apoplexy. The violence of the con-

vulsions, and the previous history of the case will almost always serve to distinguish the two, connected with the occurrence of paralytic symptoms in apoplexy. When the epileptic paroxysm has subsided into quiet coma, there is some difficulty in making a correct diagnosis; but the pallor of the face, feebleness of the pulse and absence of paralytic symptoms will generally serve to distinguish them. Sometimes the two affections seem to be associated, the patient having symptoms of apoplexy between the paroxysms of epilepsy.

From convulsions it is also often very difficult to distinguish it; but from the circumstance of the case we can generally learn enough to assure us that it is not epilepsy with which we have to deal. Thus in children irritation in any part may cause convulsions, which are not generally epileptic. There is perhaps a more sudden recovery of the mental faculties after the cessation of a convulsive paroxysm, than there is after one depending on epilepsy.

From hysteria it can generally

be distinguished by the livid turgescence of the face, the violent contortion of the features, with foam at the mouth, and the apparent unconsciousness of the patient, and the sudden and alarming cry at the commencement of the fit. While in hysteria the paroxysm comes on less suddenly, and foam rarely ever appears at the mouth, and there always seems to be a concealed motive. It is very important to be able to diagnose between the two, as epilepsy is a very serious disease compared with hysteria. Epilepsy is sometimes

feigned; but cases of this kind can generally be distinguished without much difficulty, if the patient be seen during the paroxysm.

In real epilepsy as we have seen there is profound insensibility, while in the feigned variety there is always more or less consciousness displayed, for instance, if the patient be threatened with any severe punishment he will generally show some consciousness, or if ammonia, or any other irritating substance be held to the nostrils the patient will try to avoid in-

bending it. Moreover he always selects his place for falling, and very rarely has a fit until he is where he can be seen by someone, and rarely wounds or bruises himself. He also wants during the intervals between the paroxysms the peculiar expression of the epileptic.

Prognosis.— The prognosis depends upon the cause in a great measure. If not of an organic nature it may be, and often is cured, if taken at the onset. It is also sometimes cured when of long standing; but the chances of cure are diminished in proportion to the dura-

tion of the case. When the disease commences before puberty there may be some hope of a favourable change about that period. In cases depending on excentric causes there may be more hope of a favourable issue, than in those depending on centric causes. Cases commencing in early infancy are generally unfavourable. Hereditary predisposition almost always gives obstinacy to the disease. Patients in whom deterioration of the mental faculties has occurred, rarely ever recover. In some cases the paroxysms disappear

for a time; but ultimately they will return.

Treatment.— The treatment of epilepsy must of course be various as it depends upon various causes. There are two prominent indications that present themselves. First to relieve the violence of the paroxysm. Second to prevent their return.

Generally there is not much treatment required during the paroxysm. We should place the patient in as comfortable a position as possible, with the head and shoulders a little elevated. The dress should be loos-

ened, especially about the neck and chest. A piece of soft wood or cork should be placed between the teeth to prevent injury of the tongue, and the convulsive movements should be restrained as far as possible, to prevent the patient from injuring those who surround him, or from injuring himself. If the congestion of the brain is great enough to cause apprehension of apoplexy we should bleed from the arm, and apply cold to the head, with revulsives to the feet, such as warm foot bath, rubbing the feet with some one of the rubefacients, or

mustard plasters to the extremes.
In cases where the propriety of general bloodletting is doubtful, cups or leaches, may be applied to the back of the neck, or temples.
When depletion has been carried to as great an extent as may be deemed advisable, enema of assafœtida, or oil of turpentine may be used, or emetic doses of ipecacuanha may prove highly beneficial. When there is danger of death from apnœa, ammonia may be held to the nostrils, and sinapisms be applied to the extremities.

The second indication or the treat-

ment during the intervals, presents two prominent indications. First to remove all sources of irritation, secondly to render the nervous system less irritable. To meet the first of these indications, we should study well the condition of the patient to find out whether there is any deviation from health, and if any is found to direct our remedies to its removal. Should the patient be plethoric, saline cathartics should be given and he should be confined to a vegetable diet. On the other hand should there be anemia tonics should be given with a good

diet. Of the tonics, the best are the ferruginous preparations, simple bitters, sulphate of quinia, moderate exercise, and sea-bathing. If there is indigestion it should be corrected by improving the tone of the stomach. If the epileptic convulsions occur in children, and during the period of dentition particular attention should be given to the state of the gums and if they are found to be tense, and swollen they should be lanced. Constipation when it exists should be corrected by mild laxatives. Uterine disorders should be corrected by appropri-

ate remedies. When the epileptic aura, occurs in any of the extremities, an attack may sometimes be prevented by placing a ligature around the limb between it and the brain. In short all sources of irritation should be removed as soon as discovered.

To meet the second indication many remedies have been from time to time advocated, and considered by different authors as specifics: but now a more rational view is taken of their effects and they are applied with more judgment and intelligence. General stimulants and tonics are the remedies on

which we mostly depend. Cerebral stimulants act directly on the brain, and diminish excitability, while tonics act indirectly by improving the general health. Of the tonics those derived from the mineral kingdom are said to be best. Among these nitrate of Silver is most employed, given in 1/4 or 1/2 gr doses three times a day; but there is one great objection to its use, that is that if to long employed its is apt to cause discolouration of the skin, turning it to a permanent dark blue colour. However most authors agree that nitrate used longer than two or three

months at a time, where is no danger of its producing this effect. After useing it for that lenght of time its use should be discontinued for about as many weeks, and then resumed. The different salts of copper and zinc are said to be next in efficacy. The preparations of iron are also used with asserted benefit. Acetate of lead has been used by some, and said to be a very good remedy. It may do good by its influence in reducing nervous excitement. Caution however should be taken not to use it for to long a time, as it may produce its constitu-

tional effects. When the disease assumes the periodic form, sulphate of quinia may used with hope of benefit. The antispasmodics are used with asserted good effects. Of the cerebral stimulants the most useful are belladonna, stramonium, and hyoscyamus. When the patient has premonitory symptoms he may sometimes ward off an attack by taking some substance which will make a strong impression on the nervous system.

An
Inaugural Dissertation
on
Inflammation
Submitted to the Examination
of the
Professors & Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor
of Medicine by
Wm Wh. Shange
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Introduction.

I think, we have cause to believe that the world was made for man's enjoyment; that health is the only true source of happiness. Therefore, man must have been created in health, for without this, the world, with all its beauties, and, all its pleasures, would be destitute of all gratifications, and life would be a burden. But, by the circumstances, and associations, which surrounded him; his organization became liable to diseases. Some have now become inherent, being propagated from one generation to another and often they assume the most horrid aspect and are very destructive to life,

if left alone to the recuperative powers of Nature, unaided by the hand of Art; though without Nature's efforts, Art has but little influence over them.

As the majority of diseases, to which the human race is liable, acknowledges Inflammation as their cause or effect, so I shall endeavor in the following essay to give, in a brief manner, the principle known facts in regard to its causes, appearances, effects, and treatment which are so essential that the physician should be thoroughly acquainted with them, if he wishes to be successful in the treatment of diseases, in which it plays so conspicuous a part.

Inflammation

Inflammation.— May be defined: a perverted condition of the blood and blood-vessels, with a tendency to change and destruction of the tissues, involved.

The change, from health to inflammation, may be divided into three stages, viz; 1st Vascular excitement; 2nd Active congestion; 3rd True inflammation.

The symptoms of inflammation are divided into two classes; viz, General and Local. Either may be the first to develope itself.

Local Symptoms.— Are redness, swelling, pain, heat, increased sensibility, and disorder of function, but neither of these alone is a sign of inflammation.

Redness. — This evidently depends upon an increase of blood circulating in the inflamed part. Minute vessels, that in the healthy state could not be seen to convey blood, now become dilated and transmit the red corpuscles in abundance, though in proportion to the degree of inflammation present; for, when true inflammation is established, the small vessels cease to convey blood, which becomes stagnant in them. The tint varies from a bright scarlet to a dark purple or brown, according to the kind of inflammation; whether acute, chronic, malignant, specific or gangrenous. The extent and form vary according to the character and intensity of the inflammation and tissue involved. Redness by itself

cannot be taken as a sign of inflammation, for the blush of shame is a pure physiological action; nor is the circumscribed red spot, on the cheek of persons with hectic fever, inflammation.

Swelling.— At first, this is caused by the dilitation of the vessels, from the increase in amount of blood in the inflamed part. But, ultimately, by the effusion which takes place into the interstices of the tissues. This effusion may be serum alone, more or less mixed with lymph and blood, and finally pus, if resolution does not take place. Swelling is always greater in loose dilatable tissues, as the cellular, than in those that are firm and resisting; as tendons, fasciæ, and bone. In inflammation of cer-

tain parts, as the extremities, swelling is looked upon as a favorable symptom. It relieves the vessels of a portion of their burden. But, again, if it takes place in the brain, sub-mucous cellular tissue of the glottis, or any part, the functions of which will be interfered with by pressure, it is often attended with a fatal result. Swelling should always be accompanied by some of the other symptoms, in order that evidence may be had of the existence of inflammation. It should neither be too sudden; as the tumor made by hernia or dislocation, nor too tardy, as the tedious growth of the genuine tumor. The swelling of chronic inflammation often results in permanent hypertrophy and induration of the part.

Pain. — This, we believe, is caused by the distention of the blood-vessels and consequent stretching of the nervi vasorum, and compression of the nerves in the part, also, by disorder of the sensibility. The pain is variable in amount as to the tissue involved. Tissues, that are capable of great distention, are attended with but little pain, as the cellular for example; and those that resist distention, with most excruciating pain, as bone, ligament and fascia. The kind of pain is also variable, according to the tissue. In the skin it is a burning, itching or tingling pain, in the cellular, it is throbbing, in the serous, it is acute, sharp and lancinating. Inflammations are not always attended with pain at first; for,

in some scrofulous cases, it runs on to complete disorganization without any pain being felt. Again, it is often felt at a distance from the seat of inflammation, as in hepatitis; it is felt in the right shoulder; in carditis, down the left arm; in coxalgia, in the knee joint; in inflammation of the kidneys and bladder, at the meatus urinarius. By pain alone, we cannot conclude, there is inflammation present; for in neuralgia and spasm, there is pain of the most intense kind; but in these affections it is relieved by pressure, whereas in inflammation it is aggravated. Pain, though, by its long continuance and severity, calculated to break down the nervous energy of the patient, nevertheless its sudden cessation, is looked

upon as an ill omen; it denotes that the part, being no longer capable of withstanding the intensity of the inflammation, has ceased to live; all vital action has stopped; the sensibility being destroyed, the part is not capable of feeling the destructive action. This state is termed mortification.

Heat.— This is produced by the oxygen of the blood, acting upon the carbon and hydrogen of the tissues. As there is an increase, in the amount of blood, circulating in the part; there must of necessity be, more oxygen conveyed to the tissues. And this increased oxydation of the tissues is the cause of the elevation above the temperature of a healthy part, but the burning heat, as expressed by the patient, is not

actually true; it depends, in a great measure, upon the increased sensibility; for, it has been determined by actual experiment that the heat, in the inflamed part, does not exceed but little the temperature of the body at or near the heart. Heat, alone is not a sign of inflammation, for instance, in the palms of the hands and soles of the feet of persons suffering with phthisis in its last stage, there is often an actual burning of the part as the patient expresses it.

Increased Sensibility.— This is, partly, owing to the irritable condition of the nervous system, during inflammation, and partly, to the pressure exercised on the terminal branches of the nerves by the

dilated vessels.

Increased sensibility is well exemplified in the disorder of function, which partly depends on the congested condition of the bloodvessels and partly on the increased sensibility of the nerves. The function is at first increased, then perverted and finally suppressed. To the inflamed eye, the flashes of light, that are seen become intolerable. In the brain, the organ of intellect, the function is first increased, as may be exemplified by the delirium, and then suppressed, as in coma. The ear cannot bear the least noise. The stomach rejects almost every thing introduced into it. In the bladder and kidneys a constant desire exist to urinate. The disorder of function, in in-

ternal inflammations, is an important guide to a proper diagnosis.

Having finished the local symptoms, I will proceed now to consider those changes which manifest themselves, through the constitution, and hence are called Constitutional Symptoms. These may be arranged into two divisions; viz, 1st. Sympathetic inflammatory fever; 2nd. The appearances of the blood during inflammation. The severity of the constitutional symptoms depends in a great measure, upon the intensity, extent and vital importance of the part affected; also, on the amount of local irritation; whether external or internal.

The constitutional disturbance always assumes the form of fever; which may take on the character of one of the three follow-

ing varieties, according to the constitution of the person affected. The fever may be Sthenic, Asthenic, or Irritative.

The sthenic form occurs in young, vigorous, robust persons. It generally commences with rigors and depression, followed, in a short time, by reaction, characterized by headache, flushed face, hot and dry skin, anorexia, nausea and sometimes vomiting, a frequent, full, firm pulse; though the firmness and fullness of the pulse vary a great deal, depending on the tissue or organ involved. If it be a mucous membrane, skin, or glandular structure, the pulse is compressible though full. If it be a serous membrane, it is small, incompressible and wiry; if a fibrous tissue, it is hard and full. The secretions

are arrested or diminished in quantity, the bowels are costive, the urine scanty and high coloured, the tongue dry and covered with a white fur. There is often extreme thirst. When the fever declines and a favorable result is about to occur, the system is often relieved by a critical discharge, which may take place from the skin, the bowels, the kidneys or from some of the mucous membranes, in the form of hemorrhage.

The asthenic form of fever occurs mostly in old persons and those whose constitutions are broken down by privation, dissipation or any of the depressing causes of disease. This form is characterized by debility rather than strength. The period of de-

pression is longer and reaction takes place but slowly and imperfectly. It is liable to visceral complications, as inflammation of the lungs. The pulse is frequent, but, weak, the tongue is dry, of a dark brown colour, and in bad cases the lips and teeth are covered with sordes. There is a tendency to early delirium.

The irritative form is mostly associated with the asthenic. It occurs in individuals whose mental powers have been overtasked, or in irritable systems that have been shattered by intemperance. It is known by its irregularity of action, sudden aggravation and rapid decline. The fever is high at first, but the pulse soon becomes small and sharp; the delirium is of a furious kind; eyes, wild and, head hot. The symp-

toms soon give way to those of debility and exhaustion.

The appearances of the blood in inflammation are the following. If blood be drawn from a person suffering with inflammation, and received into a spherical or deep vessel, it presents a peculiar appearance; it separates into two parts; viz, the clot or crassamentum, and the serum. The clot is firmer, denser and takes place more slowly than in healthy blood. The diameter of the upper surface is less than that of the lower, and is covered with a bluish white layer composed of fibrin. This is termed the buffy coat, and appears in nearly all inflammations; though why it is sometimes absent, I cannot tell.

This state of the blood seems to be produced by some vital change taking place in the process of inflammation. The same condition is noticed in the blood of pregnant, and chlorotic females, and sometimes in that of persons with general plethora.

The causes of inflammation may be divided into predisposing and exciting.

Predisposing causes.— A sanguine temperament, plethora, intemperance, too great exercise, foul air, bad food and clothing, and previous disease are the most obvious predisposing causes of inflammation.

Exciting causes.— These may be direct, as caustics, acids, salts, wounds and blows; indirect or vital, such as exposure to heat and cold especially the latter,

for where heat and cold act together, I think the former acts more as a predisposing cause. The exciting cause may be specific, as the vaccine virus and syphilis.

Local changes.— If an irritant be applied to some part of the body, the minute vessels become diminished in calibre, and the flow of blood through them is increased. This stage is of very short duration, especially, if the irritant be strong in its action. The vessels now become dilated. The flow of blood is retarded and irregular; it oscillates, and then becomes stagnant. The surrounding parts become more vascular and red. The vessels become distended and the blood flows more rapidly through them than in

health. New vessels are now seen, which before escaped notice. The red corpuscles which passed throug them single, now enter in abundance. The morbid action still continueing, the vessels become so distended that the current of blood is entirely arrested. Change now begins to take place in the tissues outside of the vessels. The constituents of the blood now become effused into the cellular tissue, or hemorrhage may result from rupture of the vessels. But the exudation of the liquor sanguinis is the essential phenomena of inflammation, since either or all of the other constituents may be effused in congestion. When the liquor sanguinis is absent, these changes should not be hastily received as an

evidence of inflammation.

Termination, result, or event of inflammation.— Inflammation may terminate in resolution, or in death. It may result or event in metastasis, in effusion, suppuration, ulceration or mortification.

By resolution, we mean the restoration of the part to health without any father change occuring than simple inflammation. When the local symptoms subside, then the constitutional ones give way. The vessels begin to contract, and the stagnant blood to be propelled onward. The absorbents held in check, begin now to perform their office, and complete Nature's efforts to restore the part to health.

Metastasis means the disappearance

of the inflammation, and its reappearance in a part, seperate from its original seat.

Metastasis may take place; 1st. By local extension; as in erratic inflammation of the skin, inflammation occuring in one part after its decline in another. Perhaps this would not be considered by some, as an example of metastatic inflammation, but to my mind it is perfectly clear that it is; for I understand the word metastasis to mean a change of place.

2nd. By contiguity of tissue; as from one articulating surface of a joint to another.

3rd By the morbid materials being conveyed in the blood; as, inflammation occuring in the lungs or liver after phlebitis, from absorption of pus, or from

dissection wounds.

The other results as events of inflammation differ so widely from its ordinary course, and from each other, as to constitute distinct diseases; therefore I will not say any more about their nature or treatment.

Treatment of Acute inflammation.

The treatment of inflammation essentially consist of the removal of the cause, both local and constitutional. The patient should be freed from all sources of irritation. Perfect rest of the part or organ, if possible, and an elevated position should be maintained. And all those means which we term antiphlogistic should in their turn be tried promptly and

and perseveringly. In treating inflammation, we should not be guided by the name of the disease, but by the condition of the patient. If an important or vital organ be the seat of the morbid action, and the patient be young and robust with a strong full or hard pulse, general blood-letting should be resorted to immediately. As to the amount of blood to be taken, no precise quantity can be stated, we should be guided by the age of the person, his strength, the part affected, and the effect it produces on the pulse and system. If the patient be not so strong as to bear the general abstraction of blood, cups and leaches should be applied. They should not be applied

immediately to the inflamed part, but in its vicinity.

After bleeding, or before, when that is not deemed advisable at first, cathartics should be used, and are important agents. They remove the accumulating faces, which would act as a source of irritation to the system. They both deplete and act as revellants; therefore are useful remedies and should be early administered, if not otherwise contraindicated; such as in inflammation of the intestines, or in parts that would be injured by the movements consequent upon their action.

If the stomach contain food, an emetic should be administered, unless the head be affected, which would be

injured by its use. The act of vomiting produces determination of blood to the head.

Arterial sedatives are most valuable aids to the lancet, and have almost superseded it now, for general blood-letting is but little resorted to in this country, unless the inflammation be violent or be seated in a vital organ.

Diaphoretics and diuretics are employed, and form valuable adjuvants to other and more important means. Administered through the day, such as antimony, ipecac, and opium, nitre, citrate and acetate of potassa.

Mercury I suppose has been more used and more abused in the treatment

of inflammation than any other one medicine in the Materia Medica. It is an important agent beyond doubt, for it has been in use from very early ages in the history of Medicine. Time certainly must test the efficacy of remedies, and we now see it as much used, perhaps more than ever. It is used not only for its cathartic action but also for its modifying effects on the blood and system. It prevents the effusion of the constituents of the blood, especially the fibrin, and promotes the absorption of that already poured out. It also has an effect on the blood and the process of nutrition, which action is termed alterative, and is unexplainable. Calomel, blue mass,

mercury with chalk, and mercurial ointment, are the preparations used to produce its effects on the system, which is evinced by the coppery taste, a red streak upon the gums, increased flow of saliva with tenderness of the glands and tumefaction.

Opium is useful. It prevents the cathartic action of Mercury when it is desired that its effect upon the system shall be produced. It also allays pain and irritability, which would soon exhaust the energy of the patient and defeat the object of our hopes.

In the latter stages of inflammation, when the violence of its action is subdued, or when the powers of life begin to

flag and stimulation is necessary or when other means fail, blisters are often succesful in arousing the failing strength of the system and enable the patient to survive the depressing influence of the morbid action. They act as counter-irritants, by setting up a new disease, they divert the blood and nervous influence from the seat of the original disease. They are useful in the, asthenic form, from the begining where depletion is not required, but, on the contrary, stimulation.

The diet should be low, bland and unstimulating. No animal food allowed at all, and not much of any kind.

The local agents are cups, leaches, cold, warmth, sedatives, astringents and

stimulants. Cups and leaches I have already spoken of.

There are two stages in which the application of cold to the part will be useful. In the first stage of inflammation when there is a hope of obtaining resolution, and secondly, when the inflammation has subsided, the vessels are left dilated from over distention and the tissues are relaxed. There are various ways in which it can be applied; viz. cloths, bags of ice, lint, or pouring it from a vessel. Perhaps the best mode is irrigation, where a constant stream of cold water is allowed to flow upon the part. This is a remedy that cannot be used in all inflammations; such as those

of the abdominal and thoracic viscera.

When the hope of obtaining resolution has passed cold should be laid aside and warmth substituted. This can be applied in the form of cataplasms, cloths wrung out of hot water, fomentations and baths. They sooth the part and promote suppuration, and should always be applied when cold is inadmissible. But in the use of cold and warmth, we should always be guided by the feelings of the patient, for in some persons cold produces a feeling that is very disagreeable, while warmth, with moisture, will be the most soothing agent we can employ, and vice versa.

When an abscess forms, if it be pos-

sible; it should be opened or unpleasant consequences will result.

Chronic inflammation will not require much of a seperate consideration.

The local action and changes are very near the same as the acute, only ~~more~~ milder and slower. It is attended with a great deal of vice of the constitution, to which our remedies are chiefly to be directed. The indications for treatment of the local affection are the same as the acute, only, in proportion to the disease, and constitution of the patient. We must direct our attention to the system, correct all unpleasant symptoms that may arise, promote the secretions and correct the state of the blood up-

on which the disease is depending. To do this strict attention should be paid to the diet and clothing. Mercury and iodine are the chief agents upon which we rely for the modifying effect upon the blood, whereby the disease is defeated.

The forms, which inflammation, ~~are~~ is liable to assume, such as the sthenic, asthenic and irritative, require no separate consideration. The prudent physician will readily understand the tendency of inflammation to assume the sthenic or asthenic form, and direct his remedies accordingly. The asthenic will need support finally, therefore, depleting means should be sparingly used; in the irritative form, cerebral

sedatives are the agents, upon which we rely, in combination with the other antiphlogistic means.

Now, gentleman, I have done, and in submitting this to your inspection, permit me to acknowledge to you my hearty thanks, for the instruction that I have received at your hands, and for which, I assure you, I shall ever feel the utmost gratitude. I beg of you to remember that this is from a medical student, and not to view it with a critics eye, but pass its many imperfections by.

Very respectfully.

W. T. Kemp.

An
Inaugural Dissertation
on
Aneurism.
Submitted
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Provost Regents,
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by
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of
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1863

Aneurism

Early practitioners were much puzzled by this disease, and found great difficulty in its diagnosis, though it may seem strange to surgeons of the present day that such obstacles should have presented themselves.

Modern experience however has shown that it exhibits many symptoms in common with other affections.

The derivation of the word Aneurism has been given differently by different authorities. Some say it is from ευρυνω - to distend, - others - from ανευ without and ρυθμος or ρυσμος rythm;

but we can perceive a plausible derivation in ἀνευρος - relaxed - nerveless from ἀ and νευρον - a nerve.

This is not very important, but it is best to begin at the beginning.

Doubtless the difficulty originally in the study of Aneurism, was an exceedingly imperfect knowledge regarding the circulation of the blood, which was a great mystery, until modern science unveiled it.

The ancients were even ignorant of the existence of blood in the arteries; it was thought that they contained, what they called the vital spirit.

It was not until Harvey discovered the circulation of the blood, and demonstrated it to Charles I, that any very definite idea was arrived at.

It had been discovered before Harvey's time, that there was blood in the arteries, but, of the manner in which it was conveyed to the different parts of the body, they had no idea.

Even in our own time we have some difficulty in the diag-nosis and treatment of this disease. Doubtless we may hope that in the future some one may offer something new which will dispense with much trouble.

The term "aneurism" has been applied to some affections which do not rightly come under that head. We will only mention these, and confine ourselves principally to our proper subject.

Aneurism is a bag or pouch formed by the distension of one or more of the coats of an artery, the pouch being filled with blood, which pulsates, generally perceptibly but not so, if covered by a sufficient thickness of the neighbouring tissues. A tumor is formed, which is generally to one side of the artery, the opposite side remaining undistended. Sometimes an artery is distended equally on all

sides, This is not a true aneurism, but has been designated preternatu-
-ral dilatation.

There are various kinds of aneurism, distinguished by the manner in which the sac is formed-

It may be a distension of all the arterial coats, or any one or two may have been ruptured, leaving the remaining coat or coats to form the sac.

True aneurism is the term applied when at least one of the coats remains, the aneurism becoming false when all the coats have been ruptured by dis-
-tension, or, as is more generally the case, when broken by direct

violence.

All varieties of aneurism proper are comprised within the boundaries of true and false. Any number of varieties might be found, but we think it unnecessary to worry ourselves, at present, with a host of terms, and minute subdivisions. We will leave it to older and more experienced pens.

Generally the two inner coats, being fragile, are ruptured in the early stage of the disease - the outer one becoming, by adhesion to the surrounding parts, somewhat thinner though stronger.

Aneurism may be dangerous not only from the liability of the

sac to be ruptured, thus sometimes causing fatal haemorrhage, but from pressure upon some organ in the vicinity - impairing its functions.

In the progress of an aneurism, every tissue which resists it, is liable to be absorbed, not only the soft parts, as muscle, adipose tissue &c., but even the hardest bone. This may also cause fatal results.

<u>Causes</u>. The causes of aneurism are various. The predisposing cause is most commonly a degeneration of the arterial coats. This may be produced by Scrofula, Syphilis, intemperance &c.

The coats, being thus in a morbid state, lose many of their important properties, becoming brittle and less capable of resisting pressure. Hence when any undue pressure is brought to bear upon them, from within, there is apt to be a giving way in the weakest place. (This state has been termed the <u>aneurismal</u> <u>diathesis</u>)

This pressure is caused generally by some violent exertion of the body, or by an internal spasm as a cough or sneeze. A blow has frequently caused an aneurism, physical and predisposing causes thus co-operating.

Hypertrophy of the heart has been thought to have caused an-
-eurism; the action of the heart being increased, and thus forcing more blood into the diseased arteries than they can withstand.
We believe, some say, that this may produce aneurism, without any preexisting diseased condition of the arteries.

Symptoms.

There are no pre-
-monitory symptoms of aneurism. Often the first knowledge we have of the existence of aneurism, is, that our patient says he has felt, in the heart, a "pop", as if some-

-thing had burst ::: at the same time he has felt some pain in the spot, sharp for an instant - but followed by a continued sen- -sation of uneasiness in the part, and the rapid formation of a tumor. This symptom has not been remarked in all cases by any means.

Frequently our first warning is a tumor, seated over, or in close proximity to an artery.

When first discovered, it is gener- -ally smooth; the outline oval or round. Some of the symptoms, as we have said before, are found in other affections of a very different nature.

A common fatty tumor lying over or under the trunk of some large artery may often be called aneurism by the inexperienced. The pulsations are distinctly felt, but the other symptoms which determine the existence of an aneurism are absent.

Sometimes the absence of pulsation is owing to the fact that the soft parts cover the sac in such a manner as not to allow of the beats being felt. ~~or vice versa~~.

Auscultation discovers a surer symptom. When the tumor is of some size, we can distinguish, by the ear or stethescope, a whizzing noise concomitant with the beats of the heart.

When the finger is pressed for a

little while upon the limb, it will yield and collapse, but will fill immediately on the removal of the pressure— This is a very sure symptom.

Traumatic aneurism is always false. It is generally caused by direct violence. A separate description is rendered superfluous, as the symptoms and treatment are the same in almost all varieties of aneurism.

The effects produced in the adjacent parts are principally mechanical. Organs in the immediate neighbourhood are displaced and impaired in their functions, by constant pressure;

If they cannot be displaced, they are gradually absorbed. All the soft parts around are injured to ~~to~~ various extents; the nerves, muscles, blood-vessels and absorbents, all have their functions impaired or totally destroyed. The bones, being firm and resisting, are absorbed. Cases are related by some, in which the largest bones in the body, have been eaten through, as it were, by an aneurism. The femur has been cut through, the tibia, the ribs, so great is the power of absorption.

Aneurisms sometimes in their progress open into a cavity;

which may be serous or mucous.

Aneurism opens into a mucous cavity much more easily than into a serous cavity; the latter adheres to the sac rendering it stronger.

The disease is more common to males than females. It most frequently occurs to persons between the ages of thirty and fifty; but may occur at almost any age —

Treatment —

In the first place it may be proper to state, that, in aneurism, there is sometimes, though unhappily rarely, a spontaneous cure.

This may be effected thus —

The laminated coagulum collects in the cavity to a very great extent, and the rush of blood being feeble, the clot strengthens, and adheres to the walls, allowing the progress of the coagulum, and giving strength to resist the impulse; and the patient slowly recovers.

We shall only describe the more practical and useful modes of treatment—

Constitutional Treatment—

Very little mention is made by most authorities of the constitutional treatment of aneurism; hence our remarks on this will necessarily be brief.

The prevalent idea seems to be to bring the system to such a condition, that either the action of the heart may be lessened or the coagulability of the blood increased.

The use, in small quantities, of solid food, such as will encourage coagulation, very little liquid food, a state of mental and bodily repose — this seems to be almost the only treatment indicated.

Of course the bowels must be kept regular, and the other functions.

Bleeding is seldom resorted to, and when it is, we should only take enough blood ~~blood~~ to subdue cardiac excitement, or allay pain.

Unfortunately however, this

treatment can seldom effect a cure by itself.

The surgeon alone can expect to meet with any success in the treatment of aneurism.

We will proceed to the local treatment which belongs to the surgeon.

Compression.

Compression is one of the most common modes of the present day. Continued pressure upon the aneurism, (in cases where the full effect of the pressure is brought to bear on the tumor) will at length generally cause the tumor to disappear.

The most common seat

of aneurism are the bend of the elbow and the popliteal region.

Aneurism in the bend of the elbow has been successfully treated thus—

— An india rubber ring, such as is used by children in cutting teeth, and which may be easily obtained, is placed over the tumor, so as to encircle its base. The current of blood, greatly impeded, coagulates readily, after the ring has been worn for a little while, snugly bandaged on—

In some other cases, a simple compress and roller will be sufficient.

Of course there have been invented numberless instruments for compression. Most of them are made like the truss. We have not space to enter into a

description of all these instruments, and it is hardly necessary, as we are not writing for the instruction of others.

Moreover, we are decidedly opposed to a complicated treatment in anything. The probability is, that the surgeon (if he be worthy the name) can do more, if allowed to exercise his own ingenuity, with a few rags, than with all the nicely arranged instruments ever invented.

In our practice, we should try to imitate and assist Nature. Nature is simple.

In femoral aneurism, we sometimes lay a bag of shot directly upon the tumor. This a good plan, and will often succeed if we can keep the patient quiet.

A beautiful result may often be obtained in cases of popliteal aneurism,

by flexing the leg upon the thigh, and binding it firmly in this position.

The advantages here, are, that we have no irritating substance bearing upon the diseased artery, and there is no pad here of any kind that can be displaced. We also follow the instructions of nature with regard to simplicity.

Frequently the surgeon must rely upon his own inventive powers in particular cases.

The Ligature is the great remedy for aneurism. This may be tried where the compression is not practicable, (as in diffused or traumatic aneurisms) or where it has been unsuccessful, or, the surgeon may prefer this mode.

to all others.

It certainly is the most satisfactory mode of treatment in most cases.

The danger attending it, is secondary haemorrhage, generally resulting from disease of the artery, which is thus unable to retain the ligature long enough.

A diseased artery should never be tied, and the surgeon cannot be too cautious in determining whether the artery is healthy or not, at the ligated part.

We should make a clean cut down upon the artery, and no larger than is absolutely necessary, as one which is too large or ragged might bring on sloughing of the

neighbouring parts, which would be likely to include the artery, and produce haemorrhage.

The artery should be tied at least three inches from the seat of disease, and on the side nearest the heart.

Sometimes the ligature is applied at a considerable distance from the tumor; this may be necessary, in order to avoid tying a diseased part; or the artery may not be accessible at any nearer point.

We should use the ordinary silk ligature.

The artery is disengaged from its sheath, and the curved needle

is then passed under it provided with the thread, which is then tied in a firm double knot.

One end is cut off close; the other is left hanging out of the wound, which should then be dressed in the usual manner.

Some have used two ligatures; one above, and one below, but the best authorities seem to be in favour of one.

There is another mode of using the ligature, known as Brasdor's method. This consists in applying the ligature on the distal side of the tumor. It is used rarely, except in cases where the situation of the aneurism will not

admit of its application on the cardiac side.

Manipulation.

This consists in rubbing the sides of the tumor together with the fingers — The object is, to detach, if possible, some portions of the fibrine which adheres to the walls of the tumor. This being carried by the blood into the artery, may sometimes obstruct the flow sufficiently to produce a clot. This has been tried with some success, but the result is not at all certain. There is some danger attending this method.

When the artery is near the brain, the fibrine detached, may be carried to the brain, and produce haemiplegia, or result in some other disastrous consequences.

Galvano-puncture —

Although this is not much practiced, still it deserves mention.

It having been found that blood was coagulable by an electric current, this current was made to pass through the blood contained in the sac, which soon became hard and devoid of pulsation. This method has met with success, in some instances, and failure in others, but we are

not prepared as yet to venture an opinion upon a plan which is recent, and which will probably be improved before very long if it offers much.

Nothing now remains but to make mention of one or two affections related to and sometimes treated as aneurism proper.

Diffused aneurism is merely the bursting of an artery, probably by direct violence.

The blood spreads rapidly around in the surrounding tissues, and produces a large, tense, dark-colored tumor, with no pulsation.

The ligature is the only treatment. There is no sac in this case.

Aneurismal Varix.

This is always traumatic, and is most commonly caused by the attempts of an unskillful person, to bleed:- the lancet being thrust through the vein into the artery, thus establishing a communication between the two.

The blood from the artery rushes in and mingles with that of the vein.

Varicose Aneurism is distinguished the former by having a sac,

It generally results from the former, by the gradual formation of a false sac, as in some cases of false aneurism.

The consequences from both are

the same. All the veins in the neighbourhood become varicose, and receive pulsation from the artery. The most common seat is the arm or leg. The only treatment is the ligature, above and below the affected part of the artery.

W. P. Smith

1863

An

[illegible]

[illegible]

Of the

[illegible]

of the

[illegible]

[illegible]

Degree of Doctor of Medicine

by

[illegible]

Neuralgia

Definition: "Pain along the trunk or branch of a nerve recurring in paroxysms of irregular duration, and after sitter-irregular or regular intervals."

[illegible] matter of the old patient [illegible] the commencement of the sciatic neuralgia, was confined to the course of it in the nerves of the upper and lower extremities, and [illegible] terms neuralgia were established by the [illegible] of pain experienced in these [illegible] of the latter it has been extended to all high degrees of it, in parts not in

one as an Italian physician says, "rapid oscillations of sunlight, induce inflammation in a susceptible lum-

not-be adults, and that they are often seen in the cure of

occipito-spinal nerves, in equal

and in the close-observer, although

figures of seal; and that they

actually do this say in well pronounced pain experienced during a paroxysm

in children is not attended with

horrible results as in adults

almost to vitate existence which characterises those pains in internal vital organs, that have been mon-

ownerly had different names applied on them, but that [illegible] belong to the category of neuralgic affections.

Symptoms — Pain which is severe, fulminating, darting, lancing, and burning — the pain is sometimes light at the commencement and [illegible] pain comes on all of a sudden, sometimes when rising from the bed in morning, or getting up from a chair,

[illegible] sometimes preceded by another paroxysm
and by pains flying about in the
[illegible] and is [illegible]
is sometimes preceded by indigestion, by
[illegible]
[illegible] convulsive motions of the
[illegible]
[illegible] the arteries in the neighbourhood
pulsate violently, the veins swell
and partake of a varicose appearance.
The duration of the paroxysms are
variable - sometimes intermittent, or diur-
nal. If on the paroxysms
ceased, they are more violent and
of longer duration. When the attack

is sudden it continues without abatement
an indefinite but short period
and then suddenly ceases. The seizures
attacks are the shortest. The
[illegible] continue longer than those
[illegible] or hours; the intensity of the pain
[illegible], with some remissions, with
[illegible] lancinating pains, that
[illegible] to, like shocks of electricity
causing a person twitching [illegible]
[illegible] intense pain. No hemorrhage
[illegible] any part, or diarrhoea, any sudden
[illegible] from the rectum or bladder
[illegible] the pain. The cause of neuralgia
in many cases is not appreciable. It

by exposure to cold, damp, sitting or standing in a draught. Neuralgia of the face and head are the most common; [illegible]. The pain in this form is lancinating, remitting and intermittent, following the branches of the fifth pair of nerves. [illegible] [illegible] [illegible] The accessions of tic are generally sudden and often preceded by sneezing, numbness and coldness in the part. Some writers [illegible] [illegible] The pain is seldom concentrated in one point, and not always so limited as to admit of its precise

cat-ling indicated — The pain occurs most frequently in the Ophthalmic and [illegible]

In the infraorbital division the facial nerve is affected in about [illegible] of cases to be severe, pain is felt in the eye, nose and mouth, burning is experienced in the nose. When the second branch of the [illegible] is involved in the [illegible] sometimes the dental nerve, in which [illegible] pain seated in the upper [illegible] of the teeth.

The pain rarely attacks both sides

[illegible]

age, particularly of the [illegible]
and of the corpuscles, and of
the external [illegible] [illegible]
in peculiar affected the
excessive susceptibility of the organ
to light, the least ray of light
produces the most intense pain
the pain in the eye, made worse
on pressure. Neuralgia of the
affects the branches of the fifth
nerve, [illegible] usually a paroxysm
generally to the forehead and
right or ninth ribs. The pain
frequently extends to the temples
of a darting lancinating character.
Neuralgia in the upper [illegible] to
distinguish from [illegible]

the absence of [illegible] inflammation and soreness of the muscles on pressure, and in their contractions. In this neuralgia there will be remarkable tenderness, if the spine [illegible] affected [illegible]. [illegible] other parts of the spine the [illegible] on the [illegible]. Neuralgia in the lower extremities is of very common occurrence. The pain pursues the course of the crural or femoral nerve along the [illegible] part of the thigh [illegible] down to the foot — The great sciatic nerve is generally the one that is affected. It attacks the patient in all [illegible] of [illegible]

[illegible] are very subject to [illegible].
If [illegible] [illegible] in
the sciatic nerve between the gluteal
[illegible] and [illegible] [illegible]
the [illegible] of the great sciatic
or [illegible]-popliteal, extending
[illegible] [illegible] [illegible]
[illegible], but generally along the
thigh, to the popliteal
[illegible] along the nerves of the leg
to the foot. The pain is [illegible]
[illegible] preceded by a chill, severe
[illegible] the head, [illegible] [illegible]
only one limb is affected. [illegible]
[illegible] motions in the limb are very
painful, [illegible]. [illegible]
[illegible] [illegible].

cannot walk or move about without great inconvenience. The pain [illegible] [illegible] the day it remits and then the pain becomes dull and the part feels numb. The slightest cause may bring on the exacerbation. Sometimes the accessions of suffering are followed by convulsive movements of [illegible] accompanied by [illegible] in [illegible] [illegible] [illegible] head. After frequent and

[illegible] associated [illegible]
When the attack [illegible]
continuance [illegible]
of the [illegible]

[illegible]
have mentioned [illegible]
[illegible]

[illegible]

The causes of
convulsion may sometimes
be owing to lesions in the [illegible]
[illegible]
[illegible] strength the [illegible]
[illegible]

[illegible] disposed to neuralgia have
[illegible] attack from the slightest cause
[illegible] exciting causes, are mental
[illegible]
the intellect and other
[illegible]
[illegible] of the
[illegible]
[illegible] irritation of the spinal cord
[illegible]
[illegible] exposure to
a warm cold air.

Diagnosis. Neuralgia is
characterized by the
[illegible]
by being accompanied with [illegible]

The situation of pain in the course of a nerve shows the nature of disease, the absence of fever or tenderness or pressure or hardness of the [illegible] seat of the nerve distinguish pain inflammation.

Neuralgia of the face is not easily mistaken. In neuralgia of the trunk you must [illegible] the [illegible] that is situated near the seat of [illegible] affected. [illegible] the situation of the pain, the [illegible] in the position [illegible]

[illegible] show the nature of the disease. (V.) Prognosis of [illegible] generally favourable. [illegible] death does occur [illegible] to apo-[illegible] which [illegible] [illegible] or not until after two or more.

After death nothing [illegible] [illegible] found in the brain or spinal cord of a person who has died after the attack of [illegible] may exist without any [illegible] that it is essentially a functional disorder.

Treatment of paralysis — being a form of nervous affection it might be expected to be influenced by measures to make an impression on the mind Dr. Hoo — Hence the occasional efficacy of exciting, of homœopathic pills, and of mountebanks & quackery & of most of the divisions.

In the first place we must examine the patient & see that he is labouring under no functional or structural disease of any organ in the body or any injury either external or internal.

[illegible]

[illegible]

[illegible]

[illegible] final [illegible]

[illegible] neuralgia in [illegible]

[illegible] the alternate [illegible]

[illegible] in the direct [illegible]

[illegible] good remedy for [illegible]

recommended by [illegible]

[illegible] Compter Equilibre [illegible]

[illegible] given in [illegible]

[illegible] or [illegible]

[illegible]

very good effect in cases of [illegible] combined with ammonia - has proved very [illegible]. Three drops of the tincture of iodoform acid with camphor

Local remedies - It great deal may be done for the patient by the mode of treatment the strong tincture of iodine

[illegible]

[illegible] applied with great [illegible]

[illegible] received with

[illegible] half [illegible] of the [illegible]

[illegible]

[illegible] the [illegible]

[illegible]

[illegible] Opium [illegible]

[illegible] — Repeat the [illegible]

[illegible]

[illegible]

[illegible] remedies [illegible] proved useful.

An Inaugural Dissertation on OBSTETRICS

Submitted to the Faculty of the University of Maryland for the Degree of Doctor of Medicine

by Matth: Ad: Edw: Borck jr.
of Baltimore Md.

1863.

Gentlemen!

In as much as permission has been granted to the student, to chose the subject, on which he desires to write an essay, as a part of his examination, I have chosen to write on Obstetrics, and have selected this subject, among others not only on account of preference, but on account of the elevating useful and deep studies connected with it, also it is true that every branch of the medical science contains innumerable treasures, all of which are very useful to the human family! but can there be any thing more interesting, than to study the development of our own race!

The female or woman, herself scientifically considered, is alone a source of much interest to the

earnest Student. The common mind observes scarcely any other difference between the male and the female, than the sexual, and that the latter is weaker, than the former.

But considered in the higher light of science, a man is a man, and a woman is a woman, from the Spirit and not from the material body; the latter being but the clothing of the former, there is consequently as great a difference in the mental or spiritual character of the two sexes, as there is in their physical configuration. If this is true all controversy about equality, or superiority is absurd, and worse than useless; for man is superior in those qualities which constitute him a man, and woman in those which constitute her a woman.

However! even the mere physical difference between the two sexes is a study of great interest. Between the embryo of the male and female is but little difference in the beginning, but quite soon a number of interesting facts become manifest, and the interest increases by observing the difference in the two sexes after birth. The female grows up to the period of puberty, when menstruation and a more perfect development of the breast follows, this is not so with the male: because the female is created for the great purpose of perpetuating the race. When the female becomes a mother, her loftiest desires are fulfilled.—

"Edw: v. Siebold says in one of his works: a woman without children, has reached but one

half of her existence."

Considering the great importance of perpetuating the human race, it is of great value and usefulness, to study the various conditions, and natural changes of pregnancy and no one should enter upon practice without being well acquainted with this important branch of medical science, that only by continued study and observation, can be attained. Both the life of the mother and that of the child is trusted to the hand of the accoucheur and he dare not sacrifice either of them by imprudent treatment, without staining his character with a great sin. It really might be called a Divini Science, because one shows more plainly the equations of Divine love and wisdom,

through a kind and good providence of our heavenly father.

After these preliminary remarks, I shall now commence to treat the whole subject in general and can do this only in short sketches, relying mainly upon my memory, from which I shall try to reproduce what I have learned from my books, and heard in the lecture room from our Professor, who so ably fills the obstetrical chair in the University of Maryland, and I propose first to begin with the Pelvis.

The pelvis viewed in general is only a part of the skeleton, and the microscopic description of it belongs to the Osteology, but in reference to obstetrics, the pelvis belongs, to those organs,

with which together it performs, the act of sexual function, and therefore the accoucheur must study the Pelvis a little more closely, because it gives him a more correct knowledge of the mechanism, diagnosis and prognosis of labour.

The Pelvis consists of four bones:
two os innominata
os sacrum and
os coccygis.

The innominata which is flat and irregular, is again divided in three parts:
os ilium, os ischium and os pubis.

Each innominata is six inches broad, from the anterior superior spinous process to the posterior spinous process, and seven inches high from the tuber ischii to the crest of the ilium.

The largest portion of the innominata is the ilium, and forms the prominence of the hip, articulates with the sacrum, and is described into an anterior, and posterior border.

The inferior or strongest part of the bone is the ischium, the body rests on this in sitting and presents an external and internal surface and three borders: posterior, inferior, and superior.

The third portion is the pubis it forms the front of the pelvis, supports the external organs of generation, presents an external and internal surface, superior and inferior borders and symphisis.

The os sacrum a triangular bone of spongy structure, has four surfaces, an internal, an

external, and two lateral, is about four and half inches in length, four inches in width, and its greatest thickness is two and a half inches.

The os coccyx, which has its attachment to the sacrum, is composed of three or four pieces, they play upon each other by separate joints, and the lesser sciatic ligament, and ischio coccygeal muscle are inserted into it.

The false pelvis, is the expanded portion bounded, for each side by the ilium separated by the linia ilio pectinea from the true pelvis.

The true pelvis, is all that portion, which is situated below the linia ilio pectinea, and this line forms the margin of the true pelvis, while the including area is called the inlet the inferior termination which is very

irregular and termed the outlet;

Only in considering the pelvis as a whole; is it divisible into a false and true, there is also a difference between the female and male pelvis, the former is lighter, more delicate the iliac fossae is large, the ilia expanded, the inlet, outlet and cavity are large, the acetabula further removed from each other, the cavity shallow, tuberosities widely separated, the obturator triangular and the span of the pubes greater than in the latter:

The diameters of the inlet are:

Anterior posterior, measure 4 inches
transverse " " 5 1/4 " "
oblique " " 5 " "

Of the outlet are:

Anterior posterior, measure 4-4 1/2 inches
transverse " " 4 " "

A pelvis which dont vary a great deal from these diameters, is called a normal pelvis, but if they do, they must be either malformated or deformed, and it becomes necessary to know somthing about them.

A malformated Pelvis, may be either to wide or too small too wide and the child may be born very rapidly, before the mother is aware of it, for instance in standing, this is very dangerous, the umbilical cord may break, the child drop upon the floor, and be killed instantly.

Too small and the Pelvis is generally deformed, this may be either rachitic sickness or maliae casta, and presents many different varieties.

Prof. Millenberger divides labour, when such deformity exists into three Classes:

1.st Class: where the diameter ranges from 4 3/4 to 3 3/4 inches;
2.d Class: " 3 3/4 " 2 1/2 " " ,
3.d Class: " 2 1/2 inches downwards, and says:

3 1/8 inches is the least diameter in which labour can be completed and both the life of the mother and the child be saved. Below 3 1/8 inches the accoucheur is obliged to perform embryotomy, to save the life of the mother; but below 2 inches, embryotomy is useless, here it becomes the painful duty of the accoucheur to perform Caesarean section, providing the woman is seen early, and in a perfect healthful condition, but should however the health of the

mother, be any ways afflicted, even than it is not a advisable to perform the operation, the process must be left to nature alone where interference does no good. But thank our Lord, that the accoucheur is very rarely called upon, during his practice to perform this painful operation, it is very rare in this country, but more so in Europe, Maygier, Siebold, Osiander, gives a long and full dissertation on this subject: but the improvement in the Science, in our age has perhaps aided a good deal in dispensing with this operation.

When the diameters vary from 4 3/4 to 3 1/8 inches the vertex presentation is safe, Face presentation should be turned into breech, and breech presentation should not be interfered with, until the

trunk is delivered, should the head become arrested in any of these presentations, the forceps must be applied and of course: in breech presentation, not before the trunk is delivered.

Naggier says and divides as follows:

if the diameter varies from 4 to 3 3/4 and 3 1/2 inches no assistance is necessary, under 3 1/2, to 3 and 2 3/4 inches the forceps must be applied, from 2 1/2, to 2 1/4 and 1 3/4 inches embryotomy must be performed, and under 1 3/4 inches Caesarian section must be resorted to, but Prof. Milton, Berger agrees nearest with Siebold.

Several forms and methods are proposed and instruments invented to measure the pelvis of a living woman.

Baudelocque Compas d'epaissur, is one, and the Pelvis measures of Cantuli (Pelvi mètre ou appréciatur du Bassin) is an other, Stein however deserves the credit of first inventing an instrument of this kind in 1771. These instruments are divided into two classes, those that are applied externally and those which are applied internally this is very complicated, the plainest way of proceeding is to introduce the finger of one or the other hand, making a mark, then measure with an inchstick.

The accoucheur should also remember the two axis of the pelvis, to obtain a more correct knowledge of the curved canal of the same: one of the superior straight which is a line drawn perpendicular to the plane of that straight, it would extend from the coccyx to

to a little above the umbilicus; the other the inferior straight, drawn to the plane of that straight, and would extend from the point of the sacrum to the centre space of the tuber ischii. These two form an obtuse angle with each other, and enable the practitioner, to place his patient in such a position as is most favourable for the descending of the childs head, through the brim, in to the excavation.

It might be in place to notice the muscles of the inside of the pelvis here; they are: the levator ani one on each side and fan shaped, the obturator internus; the pyriformis, the coccygeus and the transvers perinei which are sometimes strained by the pressure of the child's head.

After the consideration of the Pelvis, the organs of generation

follow, and they are divided into exter-
nal and internal.

The external are: the Mons
veneris, Labia majora (externa)
Labia minora (nymphae), Clitoris,
Vestibule, Meatus urinaris, Peri-
neum, Hymen in the virgin, Car-
unculae Myrtiformes in the matron,
and some writers consider the
Mammary glands also as an exter-
nal organ of generation.

The mons veneris, placed at
the upper part of the symphisis pubis
consists of dense fibro cellular and
adipous tissue, and covered with
hair in the adult.

The labia majora (externa),
which consists of two folds of skin
and mucous membrane, commence
in front of the symphis pubis, ex-
tends down and backwards, to the
perineum, where they meet again,

and favour the expansion of the vulva during the act of parturition.

The labia minora (interna or nymphae) which arises nearly from the same point, at the anterior commissure, and runs down and backwards, about an inch to the middle of the orifice of the vagina, and are there lost in the general lining of the external labia, and covered with mucous membrane, consisting of cellular and erectile vascular tissue, does not disappear during the distension of the external part by the escape of the childs Head.

The Clitoris is situated just below the point of junction of the nymphae, is a small elongated organ, and analogous to the male penis, erectile and very sensitive, but has no corpus spongiosum nor urethra.

The vestibule a triangular space and easily recognised by its soft

prominent circular rim, is bounded by the Clitoris superiorly, and by the nymphae laterally, covered with smooth mucous membrane, and at the lower portion, the orifice of the urethra is found.

The urethra, which extends from before backward and upward, runs under and behind the symphysis pubis, is an inch and a half long and dilatable.

The Hymen, which is found just within, in the vagina, is a fold of mucous membrane, and generally ruptured at the first sexual intercourse, the one remaining is called carunculae myrtiformes and is constituted; the space between the Hymen, and the fourchette is named the fossa navicularis.

The Mammary Glands which as before stated some writers consider as an external organ of generation, is situated in the pectoral region, separated by a thin sep,

perficial fascia, from the pectoralis major muscle. The left one is generally a little larger than the right one. These glands are also in existence in the male, but in a rudimentary state, unless, by a peculiar or morbid action excited into growth. Edw: v. Siebold mentions a case where a male nourished a baby, on account of the mother's death, and there, the mammary glands where as large as in the female, and secreted as much milk, as he, ever saw, here of course, the continued excitement of the child's sucking, caused the mammary growth.

In the centre of each mamma is the nipple (mamilla) surrounded by an areola, which is generally of a pink color before pregnancy, and becomes of a brownish hue, when pregnancy exists, and deepens in color

as it advances, and this hue remains through life after the birth of the child. The mamma a compound racemose gland, consists of lobes, lobules, and gland vesicles, and secretes the milk, this process is effected, by formation of oil globules in the epithelial cells, they are perfect, pushed out, and displaced by a new layer of similar cells, which are formed under them, and then carried into the lacteal ducts, these cells burst and give the existence of oil globules, but the cell membrane and nucleus are lost. The secretion of a yellowish viscid fluid of the mamma, before pregnancy is named Colostrum. At the fourth or fifth month of embryonic life, the mammary glands commence to develope, first by a papilla of the rete mucosum, which gives of primary and secondary branches,

and are for some time solid, but as development advances become hollow. At birth the glands measure from two to four lines in breadth, and very slowly increase in size, about the period of menstruation the first true gland vesicles make their appearance, but they are then not fully developed, this takes place at the first state of pregnancy, and they fall into a state of Atrophy at very old age.

The mammary glands are supplied with nerves, by the second, third, and fourth intercostal, and lateral cutaneous branches of the same and with arteries from the thoracic branches of the axillary, intercostal and intermammary, and after entering the gland, divide in capilaries to constitute a fine network around the vesicles.

The internal Organs of Generation, are: the vagina, uterus, uterine appendages which are: the broad ligaments, round ligaments, two ovaries, two fallopian tubes.

The vagina, is a muscular membranous canal, four to five inches in length three inches in circumference, has three coats, an external cellular, middle muscular, and internal mucous.

The uterus, is a pear shaped body about three inches long, two inches wide and nearly an inch thick, is placed at the upper part of the vagina, hangs in the middle of the pelvis behind the bladder and before the rectum, is divided into a fundus, a body and a neck, has three coats, a serous, a muscular, and a mucous, has three sets of fibres, circular, longitudinal, and oblique, which tend to diminish the cavity and expel the

contents of the womb, by their contraction.

The broad ligaments, are two duplicatures of peritoneum, one on either side, they contain the fallopian tubes and ovaries.

The fallopian tubes are two canals of cylindrical form, about four inches long, arise from the superior angle of the uterus, and have three coats, an internal mucous, a middle muscular and external serous.

The ovaries are also two in number and are considered as the testicles of the male, are situated at the back face of the broad ligament, and attached to a ligament by their own, to the uterus, oval shaped and have two coats, an external peritoneal, and an internal tunica albuginea, and contain numerous little vesicles named Graafian vesicles, and these have also two coats, an

external the tunica of the ovisac, and an internal the ovisac, in this the ovum or egg is floating, which is very small, this contains, the yolk, and in the centre of this, the germinal vesicle and on the walls of this vesicle, nucleus is seen named macula germinativa.

After this anatomical description of the normal and abnormal pelvis, external and internal organs of generation, and their diameters and construction, it also becomes necessary to the accoucheur to know the same about the foetal head; and then comparing them together, will enable him, to understand the relation to each other more easily.

The Foetal head is of oval shape and the largest at the occipital extremity, the bones of the head which are the

most important are two parietal and the frontal, which are divided in the occipital and two temporal, it is also not developed altogether as in the adult, Sutures and Fontanelles separate it, one of these fontanelles is called the anterior, and formed by four rounding corners, two of the frontal and two of the parietal bones, which makes it quadrangular shaped, and is the largest, the other called the posterior and formed by three bones, two parietal and the occipital which makes it triangular in shape. This fontanelles are of great importance to the accucheur for it helps him to diagnos the position of the child.

The diameters of the foetal head are four, which have to be particularly considered, they are:

The occipito frontal or longitudinal diameter measures from 4 - 4½ inches

The occipital oblique or mental
measure from 5 – 5 1/2 inches
the frontal mental
measure from 3 1/2 - 4 inches
the cervico bregmatic
measure from 3 – 3 1/2 inches
and as a general rule the head of the male child is always a little larger than that of the female.

The developement of the Foetus, by Blumenbach is as follows, he says: nothing can be seen in the uterus, before the seventh day of conception, which will make known the presents of a new beaing, but on the eighth day some serous woolly looking spot will be observed, which is of a greenish color, and on the twelfth or fifteenth day, the so called Ovulum Graafianum is seen, in which the humo tum salions is swimming.

The Graafian vesicle is the true egg, and formed out of the Chorion and Amnion, and weighs about one grain at this time, in the third week the embryo is seen in the egg as large as a little fly, weighs about three or four grains and is three or four lines long, on the thirtieth day, some small signs of the upper extremities are observed, weighs about nine or ten grains and is from ten to twelve lines long, but on the fortyfifth day the signs are more certain, and the embryo receives the name of Foetus. The scapula and clavicle, which were but cartilages before, begin to ossify, has still an oval shape, but longer, and little black spots and lines show the mouth, nose and eyes; in the second month these little black spots and lines,

commence to be better developed, the brain is still soft, but the heart is pretty well developed, some transparent lines are seen on it, which indicate the first signs of the great bloodvessels, the fingers and toes are also distinct, in the third month the most prominent part of the foetus are pretty well developed, the eyelids are more distinct, but still closed, a small opening shows the future external ear, and the nose and lips are perfectly seen, the organs of generation grow very rapidly the penis is long, but the scrotum empty, or the vulva is seen and the clitoris very prominent, the brain and spinal marrow is more developed, the heart pulsates, the large bloodvessels contain red blood, the liver is but little developed yet, the long bones are ossified,

so the ribs and cranium, and the muscles appear, weighs about two and a half ounces, and is about six inches long, all parts however develop very quickly in the fourth month, with the exception of the head and liver, which seems to be the only organs that are backward, the brain and spinal marrow have more consistence, and some meconium is in the intestines, the muscles are more developed, and small movements observed, weighs about seven or eight ounces, and is about eight inches long, in the fifth month perfect movements of the child are observed, the muscles are plainly developed, the lungs are grown larger and expand a little, the nails commence to unfold and more meconium is in the intestines weighs about one pound,

and is about ten inches long, a child born in this month may inhale some air, but can not live; in the sixth month all parts of the foetus have their certain proportion, the nails appear, fine hair is on the head and the glandula thymus is already present, meconium is almost throughout the intestical canal, and the testicles draw nearer to the abdominal ring, it weighs about two pounds and is twelve inches long, born at this time, may live a few hours; in the seventh month the foetus looks more like a child, the nails are developed, the hair is stronger, the testicles draw in to the scrotum, the meconium is in the large intestine, the long bones are developed, with the exception of their extremities, which are but cartilages yet,

(Epiphyses) it weighs about three pounds and is about fourteen inches long, born at this time, it may cry, live a few days and even weeks but rarely longer. I had an opportunity, to see the different parts in a foetal state, by dissecting a still born child, of about eight months, which was presented to me by a physician friend of mine.

In the eighth month the vitality of the foetus is almost finished the muscular system is perfectly developed and the eyelids are open, except the bones of the head are separated yet, it weighs about four pounds, and is about sixteen inches long, born at this time may live by careful nourishment and treatment, in the ninth month the foetus is altogether developed and can live without the mother's

assistance, the bones are strong enough to execute their functions, the muscles are developed, the heart beats strongly the circulation goes on perfectly, the nervous system is realised, the lungs breathe, and at the same time the necessary changes of circulation take place, the whole intestinal canal comes into action, the meconium is expelled through the rectum, and the urine is excreated, it weighs about five or six pounds, is about eighteen or twenty inches long, it does not show its intellectual functions yet, but the child has feelings for hunger and thirst, cold and heat, and can also taste. Carus takes only four periods of the development of the foetus, the first from the descending of the egg into the uterus, until the placenta is organized, that is the end of the

third month, the second: from this, to the point where the mother observes the first movements of the child, and that is the end of the fifth month, the third is the period where the child is born too early, but may survive by careful treatment during this period, which is about the eighth month, and the fourth is the period from this, up to the full time.

In speaking before of the natural changes of circulation, which take place, it must be at once thought, that there must be a difference between the circulation of the foetus and that of the adult, and so there is a remarkable difference, the foetus blood circulates as follows: the blood of the mother is carried from the placenta by the umbilical vein, into the umbilicus

of the child, having entered the abdomen, it divides into branches, some to be distributed by the vena porta to the liver, the remainder, by the ductus venosus to the inferior vena cava. All the blood which is sent to the liver is collected by the hepatic veins, and emptied into the vena cava as, cender, and then goes to the right auricle of the heart, and passes by the Eustachian valve directly through the foramen ovale into the left auricle, and then into the left Ventricle is then propelled into the aorta, passes on through the head and upper extremities, from there it is again collected into the vena cava desenders passing into the right auricle, from there into the right ventricle, and from there propelled by the ductus aterious into the aorta, to be distributed to the lower

extremities, at the iliac arterie however, at each side, the hypogastric artery arises to cary a portion of the blood again to the mother.

The umbilical vein and ductus venosus carry aterial blood, and the umbilical arteries and ductus aterioseus, venous blood, and as soon as the child is born and breathes, the moment the blood which takes up oxygen, changes its color from a deep dark hue, to a light red, and this is the first time the blood passes through the pulmonary vein into the left auricle, the foramen ovale closes, to prevent the return of that blood, which during pregnancy passes through the right auricle, direct into the left auricle the ductus aterioseus is also not more necessary, the arteries umbilicus closes, and while the blood is no

longer passing through it, becomes ligament.

If after birth the ductus arteriosus is left open, such persons will have then a bluish tint, possess not much heat, and are very weak, the blood has no chance to become purified of the carbonic acid gas, and early death must be the consequence.

Next to the development of the foetus and its circulation, it remains to be said something about its appendages, the umbilical cord and the Placenta.

Three membranes cover the foetus, the external: Membrane decidua, the middle: Chorion, and the internal: Amnion.

The membrane decidua is present from the commencement of pregnancy.

The chorion is the first membrane around the egg, is

velvet like on the outside, and connected with the decidua's internal side, supports the egg before the placenta is organized.

The amnion is the second membrane which surrounds the foetus, it contains the liquor amnii, is very fine and transparent, and connects by very fine floks with the chorion.

The liquor amnii is transparent and clear, without taste or smell, but it becomes milky and smells sometimes in the last months. The use of the liquor amnii must be certainly intended for the protection of the embryo from external mechanical injury, and to dilate the os at the time of labour, and not "as I have read in some works but don't remember in whose,"

that it was intended, to nourrish the foetus, this of course can not be so, as I have also seen cases mentioned, where the child was born, with both; the mouth and nose grown together, in such cases the liquor amnii, could certainly not have nourshished the foetus. but it is well understood now that the foetus, is nourshished through the mother.

After Vanquelin and Buniva the liquor amnii consists of water, albumen, muriat of soda, pure natricum and phosphate of lime.

The placenta which is not organized before the end of the third month, becomes in the last period of pregnancy very vascular and spongy, it is generally of a round shape and flattened, about

about an inch thick in the middle, and thinner at the edges; is about six or eight inches in diameter, from sixteen to twenty five inches in circumference, has an external convex and internal concave side, the convex side is closely connected with the uterus during pregnancy, and the concave side is toward the child and very smoothe, covered with the Amnion and connected with the Chorion, as stated it is very vascular, and its vessels become stronger and stronger toward the insertion of the umbilical cord, till at last the three large vessels of the cord is formed. The placenta generally adheres to the back and upper wall of the uterus, on the right side of the mother, but sometimes lateral or in front, and very rarely below, over or upon the

os uteri: if this is the case it is called placenta previa.

The umbilical cord is generally inserted in the middle of the Placenta, but also sometimes on the side or closed to the edge, it consists of three large vessels, as before mentioned, two arteries and one vein, is about from eighteen to twenty four inches long, as a general rule, but sometimes there are exceptions. Siebold saw a cord in the year 1827 forty two inches long and the shortest he ever saw was eight inches long, some writers even pretend to have seen cords of fifty and sixty inches long, others again pretend to have seen very short ones, Salinger tells us he saw one of four inches, and Osiander one of three inches.

Every foetus has but one placenta, also in multiplied pregnancy, as a general rule has every foetus his own placenta, they are connected at their edges, but the division is plainly observed, in twin gestation both have one Chorion, but each one Amnion. But exceptional cases take place, where both children have but one placenta, or both are in one amnion on account of the rupture of it, or each has its own chorion and amnion.

A woman that carries the fruit of a new being in her womb, is called a pregnant woman, and this is understood by the term pregnancy a woman can not be pregnant unless she has conceived and conception can not take place without sexual intercourse, this is well known, and all cases which have

been spoken of in some older works, of pregnant women, without having had sexual intercourse, are absurd.

The species can only be reproduced by the union of the two sexes, and nature has prepared this great work, by the act of menstruation, there are two principal theories of generation, epigenesis in which each parent contributes a part to the development of the new being, and evolution, in which the female supplies all the necessary material, the male only awaking the plastic power resident in the female product. as general it is believed that each supplies material, the male the seminal fluid, containing the spermatic, the female the ovum containing the germ cells, union takes place and from thence the tertium quid results.

The great difficulty seems to be how and where conception takes place in the first instance, and nature has left us here in the dark, but as the physiology of this is not of so much practical importance to the accoucheur, as the phenomenen and signs of pregnancy, it might be proper to notice something about them:

Until the end of the first month the accoucheur is not able to satisfy himself about the truth of pregnancy, in the second month, the volumen of the uterics increases, which was before somewhat more contracted as natural, in the first month; and the uterus can be felt lower than natural. in the third month, the volumen of the uterics is more increased, not so easily reached,

and a little oval, the abdomen slightly protruded, in the fourth month the fundus of the uterus protrudes over the symphysis pubis, and well felt in the person, in the fifth month, the lower of the abdomen is pretty well rounded, and the fundus is felt between the umbilicus and symphysis pubis; (the mother observes the movements of the child in this month;) in the sixth month, the lower part of the abdomen is strongly rounded, the fundus reaches up to the umbilicus, and the umbilicus disappears, the accoucheur can feel the movement of the child by placing his hand upon the abdomen, as well as by the introduction of the finger into the vagina, in the seventh month, the fundus of the uterus is a little above the umbilicus, the middle part of the

abdomen becomes now rounded, and in the eigth month the upper part of the abdomen becomes rounded, the fundus is between the umbilicus and the scrobiculus cordis, in the ninth month the fundus has reached its highest point and is near the scrobiculus cordis, and the upper part of the abdomen is more rounded now, but in the tenth month, the fundus sinks again, and almost deeper than in the eight month, and in the last few days the os uteri cannot be detected, and sometimes the os is dilated a week before labour sets in.

Pregnancy commences with conception and ends with the birth of the child, it lasts generally 280 days, but cases are meet with of shorter or longer duration.

The signs of pregnancy are divided in rational and sensible.

Rational are: ceasing of the mentruation, can however not always be relied upon, as there are women which mentruate through the whole time of pregnancy, and also women, which never had mentruated, and the menses begin, with the first conception.

Morning sickness, pail complexion, salivation, swelling of the lower part of the abdomen, the dark areola around the nipple of the breast, some women have this naturally, and in others it is not observed at all; swelling of the mamma and excretion of a liquid and sometimes milk, but even this has been observed in young girls.

Sensible are those which are observed through the touch,

and to be quite sure, that preg-
nancy exists, the accoucheur has
always to enter upon an vaginal
examination, this may be done
externally or internally. Externally,
by placing the hand upon the ab-
domen, and so through the touch,
feeling some parts of the foetus, also
through auscultation, by applying
the ear and observing the sound
of the foetal heart, also the
circulation of the placenta, and
the pulsation of the cord have
been heard, but the sound of the
heart of the foetus, can only be re-
lied upon. Internally, by the intro-
duction of the finger into the vagina,
this may be done either if the woman
is standing upright or laying
down upon her back with the knees
drawn a little upwards, the
standing position however is

is preferred, the accoucheur places one hand upon the abdomen on the fundus uteri, to study it; the forefinger of the other hand, which has been oiled before, is introduced into the vagina, a quick and a little sudden jerking with the finger is made, and a sensation will be felt, as if something had been thrown up and fell down again, this mode of proceeding is very useful about the sixth month, and before entering upon an internal examination the bladder and the rectum should always be first emptied.

The signs to detect the death of the foetus are very uncertain, the absence of the sound of the foetal heart, is about the only sure sign to depend upon.

The process by which the contents of the womb is expelled, is termd lobour, and commences generally at the two hundred and eightieth day after the last appearance of the menosis, the causes of lobour are not yet well understood, but principally affected by the uterus itself, assisted by the diaphragm, and muscles of the abdomen. The classification of lobour varies a good deal with different writers, the division in natural and preternatural or artificial lobour seems to be perhaps the best and plainest; natural lobour, where the woman is delivered by the process of nature alone, without the assistance or interference of the accoucheur, and pretenatural or artifical, where the woman cannot be delivered, unless the accoucheur interferes, as for instance in turning, or the use of forceps, or sezarian section,

In every case, the general features of labour are alike, attended with suffering, but the details are different, and also the duration varies much. The division of labour varies also as much, with the different writers, as the classification some writers divide labour in four, five, six and more stages, others only in three, and this last one, is the most adopted, the first stage: from the beginning of the first pain, until the dilatation of the os uteri, and may be continued thirty hours and upwards, without any danger to the mother or child. The second: from the dilatation of the os, until the delivery of the child, and can not safely extend beyond seven or eight hours without great danger to both mother and child, and the chief danger

of the mother, is the compression of the soft parts and wounding them, which may be followed by inflammation and sloughing etc: and the third stage ends with the expulsion of the placenta; if labour is prolonged in any of these three stages beyond the usual time, it is called tedious labour.

As nature has not placed the child always in one and the same situation, in the womb of the mother, but very differently, sometimes with the head above, others with the head below and perhaps in still other cases, the child may be placed transverse, so it must at once be seen, that the mechanism of labour can not always be the same in every case, but also different, and this is of the utmost importance to the

accoucheur, and these different situations of the child are divided into presentations and positions.

By Presentation is understood, that part of the child which presents itself to the superior straight position, whether it is left or right. The Presentations are subdivided again in natural and unnatural. In describing these divisions, writers are of different opinions, some adopt four, some six, others only two natural presentations, the head and the breech, and take all others as positions or unnatural presentations, but in describing these presentations, their diagnosis and mechanism, I shall follow the course adopted in our school, and begin with:

Vertex Presentation.

The diagnosis of this presentation is the anterior quadrangular fontanelle. This presentation is the most frequent 96 per: cent: of all, 40 per. cent. are left anterior occipito iliac position.

The second stage of labour is divided into five stages, this of the left occipito iliac anterior presentation is: first flexion of the chin upon the sternum, second descending of the head into the former position, to the peritoneum or as far as the tuberosity of the ilium, third: rotation of the head, so that the occipital extremity engages under the pubes; fourth: extension of the chin forward, to disengage from the vulva; fifth: again rotation so as to bring the shoulders present at the anterior posterior diameter of

the upper straight, this last rotation is in conformity with the first rotation, the head of the child outside of the genetal organs holds the same relation to the superior strait as it did when the second stage of labour commenced. In this presentation, the foetal head has its fronto occipital diameter, at the commencement of the second stage of labour, corresponding with the left oblique diameter of the pelvis of the mother. The left oblique diameter being a line drawn from the sacro iliac symphisis of the side of the pelvis to the sectioneal emience of the left side, and the right oblique diameter being a line drawn from the left sacro iliac symphisis to the right pectineal emience. This position however may be changed in the first division of the second stage of labour, by the

face acting nearer the occipital extremety of the foetal diameter, which drives the occipito brachmatic diameter in relation with the left oblique diameter of the pelvis. Again, in the second stage of lobour, where there is a left occipito anterior position of the head, there is, first: forced flexion, second: descending; third: rotation; fourth: extension, fifth: external rotation.

The second most frequent position is the right occipito posterior iliac the mechanism is similar to the foregoing, the head presents at the commencement of the second stage of lobour, with its fronto occipital diameter, in relation with the left oblique diameter of the pelvis, but the occiput is nearest to the sacro iliac symphisis, and there are also five divisions in this stage,

first: forced flexion; second: descending; third rotation; fourth: extension; fifth: external rotation.

The third phenomina, differs here from the same in the previous position, here describes half a circle, and rotates from the right to left, and in the previous only a quarter of a circle and rotates from the left to the right. Other exceptions in this position, are: that the head in the third division, sometimes does not rotate forward so as to engage the occiput under the pubes, but moves backward and the occiput remains in relation with the coccyx, and the chin will then be in relation to the pubes in this case, there will be no extension followed, but increased flexion until the occiput is disengaged from the perineum,

then extension follows to disen-
gage the chin from the pubis,
after this there is again rotation
to the left, until the shoulder pre-
sents with the long diameter of the
inferior strait. Sometimes the
occiput becomes fixed in the de-
scent, so that the chin leaves the
sternum and converts it into a
face presentation, from that point
onward, it must be continued as
such. The other remaining positions
are extremely rare, and if they
do occur present nothing diffi-
cult in the mechanism.

Face Presentation.

The diagnosis of this is made by
the prominence and irregularity of
the features, the nose, the eyes, the
mouth and the chin, the nose how-
ever is the best sign, it not alone

tells the presentation, also the position, this presentation is sometimes mis, taken for breech presentation, the mouth for the anus, the molar bones for the tuberichii. This presentation wants more laborring effort, and differs somewhat in its mechanism from the foregoing, there is; first extension; second: descending; third: rotation; fourth: flexion, and fifth: rotation in the second stage of labour, hence in the commencement of this stage, the fron, tal position of the head of the foe, tus presents at first, the forced extension will then be the result of the force from above, acting upon the head, and extending backward until the occiput will be against the back of the foetus, and will bring the face or fronto mental diameter in relation with

one of the diameters of the superior straight, the descent will not continue down so low in the pelvis, before rotation takes place, as in the vertex presentation, but rotation will commence after the head and shoulders have sunk down about an inch and a half in the pelvis, and will continue until the chin becomes engaged under the pubis, after this there is flexion until the occiput is disengaged from the vulva, and then again, external rotation. Delivery cannot be accomplished except in this way, unless the pelvis is excessively large or the foetus excessively small. The extreme extension of the muscles of the neck of the child in this presentation, render them for a few days almost useless, and the head will fall back

and must be supported, also the tumifaction of the face is worth noticing, not on account of being dangerous, but on account of the deformity, which is very striking for several days, and disappears without any treatment.

Breech Presentation.

The diagnosis of this, is the sacrum and coccyx, which are the chief indicating points, the large trochantors, the anus and the organs of generation.

This presentation accurs in about three pericent: of all labour cases, and when it does accur, the left sacro iliac anterior, is the most frequent position, next the right sacro iliac posterior.

In the commencement of the second stage of labour, in the left sacro

iliac position anterior, the sacro pubic diameter of the foetus is in relation with oblique diameter of the pelvis of the mother, and this relation will commonly not be changed until the trunk is delivered, after which there is rotation, so as to bring the occiput under the pubes; then there is flexion until the head is disengaged and delivery is completed; in this labour, the head may be brought down, the chin flexed upon the sternum, or the fronto occipital diameter may be in relation with the left oblique of the pelvis until rotation occurs at the inferior strait. In this presentation the arm should not interfere, and if interference should become at all necessary, it would be only after the trunk is delivered, — for, when unnecessary interference, the arms may be dis-

placed and cause them to extend upwards and past the head, and so render the delivery more difficult. this will as general not happen, if nature is left entirely alone.

In the right sacro iliac position, the labour may be completed in three ways:

The first: and most frequent is the rotation of the occiput forward until the left sacro iliac be engaged under the pubis.

The second: in which the occiput does not rotate forward but remains in relation with the sacrum, in this the chin engages above or over the symphysis pubis and labour will be completed by extension, so that the occiput would be delivered first, next the bracha, then face and last the chin.

The third: in which the head

comes down flexed upon the sternum, and thus the face comes down under the pubis, and is first delivered, after this the brachma, and then the occiput.

In this presentation the child's life is most in danger, by the compression of the cord, as to impede or arrest the circulation, in coming between the walls of the pelvis and the bones of the head, when the child is delivered as far as the umbilicus, it then becomes the duty of the accoucheur to avoid the evil of compression, also that of too much stretching of the cord, by passing his finger Lookelike above the umbilica and around the cord, and draw it down a little below the umbilica, trying to get it in relation to the side of the vacuum where it is not so ~~xxxx~~ much likely to be compressed.

Should however the pulsation of the cord cease, the child must be delivered as soon as possible, else it will be still born.

Shoulder Presentation.

This is an unnormal position of the head presentation, and divided into the right and left lateral plane, and each of these, into a right and left cephalo iliac.

The diagnosis can not be very surely ascertained, unless labour has progressed somewhat, it might be suspected, from not reaching the parts of the child; if the arm or the hand presents, in either of these positions, it is thought, rather an advantage, as it not alone tells the presentation, but also the position. Nature can not accomplish the labour in any of these

presentations or positions alone, the accoucheur's interference is unavoidably necessary, also some writers mention cases, where nature has accomplished the process, but this is rarely done, as a general rule the child should be brought into a natural position, this is effected either by version of the head, the shoulder is pressed backwards, and the head substituted for it, and then left to nature alone.

Or: version by the feet, where one or both feet are seized and brought down, this last operation is the most adopted and the safest for the mother, also there is great clamor to bath, it is thought one of every fourteen of the women and about one of every three of the children is lost. therefore the accoucheur must make no use of it,

if it can be avoided, but when ever he must resort to it, not inform the mother of the danger. The operation is performed as follows; the woman is placed at the edge of the bed with the perineum well supported, the legs resting upon a chair, and these as well as the arms supported by assistants, the accoucheur stands or sits between the legs, in performing the operation, and for the introduction of the hand for turning an intermission of pain must be awaited, also for the act of turning itself, the interval is the proper time. Turning may be accomplished very slowly, when there are no circumstances to hasten it, as for instance hemorrhage etc. if this is not the case, one foot may be only seized, and always the one which is the most remote.

Of course the accoucheur should never forget to oil the hand which he uses for the operation, with the exception of the inside of the same.

Twin or multiplied gestation, if there are two or three children in the uterus, various complications may exist, sometimes both children engage in the superior straight at the same time, this must be prevented if it can be done, by keeping the posterior head up until the anterior one has engaged, other times one child presents the feet, and is partly delivered, when the other presents the head, and then become hitched together, the chin of the one, under the chin of the other, in this position delivery is impossible, the accoucheur must

raise the first child up or press it down as the case may be, so as to enable him to apply the forceps to the head of the second child, and try to deliver it first, if this can not be done the first has to be decapitated and the second delivered, and this will be the only way of saving the life of one child and that of the mother. In other cases again one of the children may present the feet and pass down uninpeded until the head becomes engaged into the superior straight, and then it might be caught be the neck of the other, curling around it, in this case it may become necessary to decapitate one of them, and where it is not possible to prevent both heads from entering the superior straight, measures

must be taken to embryotomy of one of them.

After the child is born, the accoucheur has to tie and cut the cord, some use only but one string, but two are preferable, one to be tied about two inches from the umbilicus, the other a little below, on account of cleanness first, and second there might be an other child in the womb. If after twenty five or thirty minutes the placenta is not expelled the accoucheur must proceed to take it away, the placenta may adhere, and this may be known to exist when traction is made upon the cord, and after leaving it loose, it will recede again, the accoucheur must try to peal the placenta off, if it can be done with

out much severe injury to the uterus, and after the delivery of the placenta, the uterus should be fully contracted. The pains, denominated Afterpains, are sometimes distressing to the woman after delivery. Two conditions may be followed in the uterus, one if the uterus is fully contracted, and there is great pain, opium will correct this, the other where the uterus is not fully contracted, known by the pains being followed by a clot of blood at each contraction, and this may be overcome by the use of ergot.

Immediately after paturition Lochia commences, and may continue three or four weeks, it is generally serous during the first five or six days, and ends with

a discharge of all that has remained in the uterus after delivery, and may therefore also be purulent at its termination. The lochia may be arrested for a few days, when lactation commences, and this is generally accompanied by a slight fever. Cleanliness is always of the utmost importance, for the safety of the woman after delivery.

Distochia, is first the want of contraction of the uterus, or inertia of the organ, or powerful contraction, or irregular contraction where only part of the uterus contracts; second: from hemorrhage and convulsion, third: from malformation of the pelvis, or tumors in the vagina etc.

When the patient is of a plethoric habit, and irregular

contraction or want of contraction takes place, with a hot and dry skin and an accelerated pulse, the lancet is the best remedy; on the other hand if of a nervous temperament or weakly and spasmodic and irregular contraction occurs, opium is the best, but if there be entire inertia and nothing to contraindicate, the ergot must be employed. It sometimes occurs in labour, that when the head of the child has passed through the os uteri, that the os contracts, between the neck and shoulders, which condition is known, by the head descending during the pains and retracting during the intervals, here bloodletting or Chloroform has to be employed to overcome the trouble.

The os in contracting, gives sometimes a wrinkling sensation

to the touch, this depends upon spasm of the muscular fibres, and may be corrected by the use of Belladona ointment or by the use of a small piece of bella. dona extract introduced with the finger, applying it to the constricted os, but when ever there is a hot and dry skin, and a good deal of inflammatory excitment present, bleeding will be the best means. But there is still an other kind of contraction, named the hourglass contraction, this accurs in the neck of the uterus, either by the circular fibres around the uterus or by the circular fibres in the neck lower down contracting, and is of the worst kind, when this happens and the placenta should be retained there in the uterus,

Chloroform must be administered, to overcome the spasmodic contraction, and then manipulating deliver the placenta, this is the only treatment. other irregular contractions which take place in the uterus to embrace the placenta, and which is known by a tumor felt in the same part of the uterus, must be treated in the same way.

In mentioning several times the employment of Ergot, and this drug, if in careless hands, is fraught with a good deal of danger, and therefore should be used very carefully, a few remarks as to its administration, will certainly not be out of place. Ergot the dessicated product of common rye, is never employed during the first stage of labour, but in the two following stages and after labour when indicated.

Inertia of the uterus is the chief indication of its employment, and spoken of already, it serves sometimes, as the only effective remedy for hemorrhage after unusually quick labour, where the uterus is left almost entirely inactive after delivery.

The dose is from 20 grains of the powder or 20 minims of the ethereal preparation, to be repeated every fifteen or twenty minutes until it operates, commonly the action begins to manifest itself in fifteen minutes after its administration and continues to act about one hour, and if the action is desired longer, it must be repeated at the end of the hour.

If employed in the second stage of labour, the following conditions are necessary for its safe use,

the os must be fully dilated, the va-
gina also, and must be moist and
lubricated, the perineum must be in a
condition, so as not to offer any resis-
tance to a speedy termination of de-
livery; the relation between the pel-
vis and the child must be normal
etc., no deformity must exist in it,
so as to impede the labour, such as
being too small or any other condition
unfavourable for the speedy completion
of delivery, no tumors or any other
portion of the parts, must exist
to interfere, the child must have
its normal size, so that it may
pass through the parts with ease,
the presentation must be favourable
either head or breech, unless these
conditions are presented, it would
be very injudicious practice to ad-
minister the drug, for the safety
of the mother and the child is

threatened; If after the administration of the ergot, the child is not delivered, within twenty five or thirty minutes afte, it begins to act, the child will be still born.

Through the kindness of one of my physician friends, I had an opportunity to observe the action of the ergot. The woman was in the second stage of labour from 12 o'clock at night until 8 o'clock the next morning, the labour pains were very weak, 25 drops of the ethereal preparation where administered, within thirty minutes action commenced and the child was safely born in twenty seven minutes after the action of the drug.

Yet, not every woman, carries her child to the full time, abortion may take place, and this can be done, by three conditions, or which

two are peculiar to the female constitution. One applethoric habit of the body, the other anemia state of the body, and followed by nervous irritabilite, the third accident.

The accoucheur has to treat, the apletoric habit, by the deplective remedies, such as bloodletting with the lancet, saline cathartherics, especially at the period when menstruation should accur. In the anemia state the treatment must be opposite, on account of an opposite state of the system, the state of the blood must be tried to be improved by the use of tonics, ferriginous preparation etc.

If in anu of the three cases actual abortion takes place, and has to be treated, quietude, cool drinks, strict diet and the administration of lindane or

opium per rectum, astringents acting principally upon the uterus, are the remedies, to be employed, with the exception of nourishing diet in the anemic state.
Should siphilitic desease in the male or female be the cause of abortion, the immediate employment of mercury becomes necessary, and in accurrence of dangerous hemorrhage the vagina has to be plucked up with lint, up to the os uteris and a compresso placed over the external parts, secured by a bandage around the pelvis and over the genitals.

This can be done with great safety in the first month of pregnancy, also with a good deal of safety in the fifth or sixth week but then it must be closely watched

and in cases where there is habitual constipation, pills containing 1-1½ gr of Aloe and ¼ of a gr. belladonna extract, may be used with good effect.

Under all the evils, on which the accucheur, particularly must direct his point of view, Hemorrhage will take the first rank; this may be divided into accidental and unavoidable.

Accidental: are hemorrhage attending accidents almost of any kind, either during the period of pregnancy or at parturition, or immediately after it, an unavoidable hemorrhage accurs when the placenta is in its attachment over the os uteri internally, or in the closest proximity partly over it. Than again hemorrhage may

be divided into external or internal. External when the blood is escaping the vagina and external parts. Internal when it does not escape through the vagina, and external parts, and this is diagnos by the sudden increase of the volumen of the uterus, and may accur during or at the end of pregnancy.

When accidental hemorrhage occurs during preagnancy, and is of such a character as not to endanger the life of the mother, the accoucheur must employ means to arrest it and try to bring the child to full term, but if the hemorrhage should continue, then the membrane must be ruptured, and delivery completed soon or gradually as the circumstance may require.

Should the head present at the upper strait, and not be engaged in it, it must be turned, if this cannot be done the forceps must be employed, the immediate object is always to induce the uterus to contract, and this is the only means to arrest it, in such cases the rupture of the membrane, and bringing the solid part of the child in contact with the uterus, acts as a stimulent and is the best means to induce uterine contraction, but if after the delivery of the child, the uterus has not fully contracted, some inducement must be offered for its contraction, by means of manipulation with the hand externally over the uterus, by administration of the ergot, by cold douche, and this will as

a general thing contract the uterus permanently. An other condition sometimes presents itself, in which the accoucheur will not have time, to resort to the above mentioned means, and to await their effects, the hemorrhage instead being but a small stream, gush away at once, through the vagina al, most as much as there possibly can pass, producing immediate flaging of the pulse loss of sight and syncope, this is not always external but also internal, known by the rapid extention of the uterus under the hand, and the same effect follows as by the external, in such cases there is no time to consider, a prompt and quick action of the accoucheur is

required, the only remedy which is known, is to introduce one hand into the utero, with a piece of ice, if on hand, or without it, apply the other hand externally and so compress the bleeding space, between the two hands, and in this manner arrest the hemorrhage, the placenta may have been delivered, previous to the bleeding, or may remain in the uterus yet, and attached to it, then it must first be peeled off, and then compressed, the hands must be used until the uterus contracts, keeping the placenta below it, and bring it away after the successful contraction, and to prevent syncope, stimulants must be administered, also cold douche employed at the same time, and if ineffective first warm, and

then cold may be used, also ergot may be used. Our Professor on this branch, recommends for this reason not to leave the woman, within one hour after parturition, and he does so with right for: the accoucheur should have no other business on hand, than only his patient in labour, which he attends, and should not leave her, until he knows her safe, then if he leaves too quick and an accident like this should occur, there would be no help for the poor woman, and the blame would fall upon him.

Hemorrhage from placenta previa or unavoidable hemorrhage differs in several circumstances from accidental, and this serves to distinguish it from the latter, there is commonly

at longer or shorter intervals from the sixth to the ninth months of gestation an attack of hemorrhage which may subside spontaneously, by a clot of blood pluging up the os, but may also be of such a character as to demand interference. When labour has set in, it may be distinguished from the other varieties by its bleeding being most abundant when the uterus contracts, where as the other bleed most copiously during the intervals, in both, the object is to empty the uterus as speedily as it can be done with safety and cause the uterus to contract. To arrest the hemorrhage Boudelogue recommends pressure upon the abdominal aorta, this accomplishes

sometimes the purpose, and caused the uterus to contract permanently, and may be tried also in severe cases of hemorrhage.

In Placenta Previa, when the os is at all dilatable, the fingers may be introduced, gradually dilate the os, and dissect the placenta along its inner margin, then seize the feet, turn and deliver the child, if the hemorrhage is not severe, then it may be left to nature alone, to finish the process. After parturition the chief remedies to be employed are opium, brandy and nutritious diet. Wine is objectionable on account of disagreeing with the stomach, it renders it acid in great debility.

In all cases of severe hemorrhage, these may be symptoms

which are sometimes mistaken for inflammation of the brain but if the opposite condition of the system which may be followed by such symtoms is borne in mind, it is not very lickely to commit this error, then after the loss of so much blood, it might prove very fatal if mistaken. Acute pains in the head, frequent weak pulse, dread of light etc, are symtoms that follows, which in an non anemia state of the system, would indicate cerebri, tis, but here it does not in, dicate such a thing, the treat, ment must be as already stated. If hemorrhage takes place in a week or two after parturition, the ergot will arrest it, and a very successfull plan adopted by Dr. Millenberger

is a blister over the sacrum.

Hemorrhage that accurs in delivery, especially those accompanied by placenta previa, are very fatal, it is thought generally one out of every three is lost. Next to hemorrhage Puerperal convulsion attracts the accoucheurs attention, it is more dangerous but of less frequent accurrence, the different named under which they are designated are Epileptic and Puerperal convulsions and Eclampsia, and they may be centric and eccentric. Centric when they emanate from the centre of the cerebro spinal nervous system, and eccentric when the irritation is at the peripherical extremity of the nerves fibres. The centric

may arise from three distinct conditions of the system, anaemia, plethoric, and when there is a poison in the blood which excites the nervous centre to action, this poisonous condition of the blood, may be due to excrementitious matter retained in the blood such as urine, when the kidneys dont perform their proper duty, and which become converted into urate of amonium and then acts as a stimulant to the nervous centres. In a plethoric state, congestion of the spinal cord or of the medulla oblongata, or both together may produce convulsions.

The eccentric causes may be the uterus, its appendages, the stomach or the intestines or other organs, when they are in a highly irritable condition.

The treatment of the centric convulsion is free bleeding, application of cold to the head, nauseating doses of tartar emetic 1/4 to 1/2 a grain, after which in some cases it may be required to employ the opium or chloroform as a sedative to the nervous system. The chloroform however requires great care on the part of the practitioner, for, its administration is sure to do mischief, if there is a true tendency of congestion present, but if employed carefully and judiciously it is a most valuable agent. Whenever there is a strong full pulse the face and neck engorged with blood, a hot and dry skin, the only reliable means is the lancet, and

tarter emetic with cold application to subdue this condition, if the stomach is the course of convulsion, the attention must be directed to this, and after bleeding to prevent congestion a quick emetic of sulphate of zinc, or even common salt, if nothing else can be had quick enough, may be given to unload this organ. If the bowels are the seat of irritation they must be evacuated by an enemata, first by warm water if not succesful, oil may be tried and every thing has to be avoided, that has a tendency to irritation, if the bladder is the seat, evacuation by the catheder may be necessary, and if the uterus itself, the membrane must be ruptured and delivery promoted.

Eclampsia, depending upon the urine being retained in the blood, and there converted into carbonate of ammonia, must be treated, a little different, blood letting may become neccesary if there is much danger of the brain becoming overwhelmed by congestion, but commonly their indication can be fulfilled by drastic purgatives such as jalep, and blisters on the neck etc.— between the interval citric tatari or benzoic acid must be administerd, the benzoic acid is preferable, while it decomposes the carbonate of ammonium.

Colchicum may be also of some use in this state, on account of its diuretic effect, and promoting its elimination of the urine through the kidneys.

The diagnosis of the uremic state, is the albumen in the urine and odema of the lower extremities and genitals.

To conclude my essay, I should not forget to say something about the Forceps, it will not be necessary to go in detail in, from its history, it may be sufficient, to say that the forceps of Hadge's, recommended by Prof: Miltenberger, is the one now commonly in use; they consist of two blades, a male and a female one, the male is the one that has the pivot, by which the blades lock. In the application of the forceps the Professor on this branch also recommends the system to be brought under chloroform, the woman should be placed as in turning, with the

perineum fully over the edge of the bed, the long parts of the pelvis should only rest upon it, so that the bed clothing can not interfere, and in no operation of this kind should exposure of the person be made, as the eye cannot assist the accoucheur in the operation, and if the practitioner can not do this, it is better for him to leave Obstetrics alone. After the woman is placed in position, and supported by assistants, is as a general rule, the posterior blade first introduced, the anterior last, in cases which are the most frequent, and where the long diameter of the child's head is in relation with the left oblique diameter of the pelvis, the male blade is in two

duced by holding it in the left hand, and with the fingers of the right hand the blade is followed into the vagina, so as to protect the parts from being impaired by it, and to bring it in proper relation with the childs head. The female blade is then introduced with the right hand and followed with the fingers of the left hand, the male always corresponding with the left, the female with the right side. Great care should be taken, not to get any parts of the uterus or the vagina within the grasp of the forceps.

The forceps is mainly used as a lever, no violent traction must be employed, only enough to maintain what is progressed, from the movement from side to

side, and continued until the head is delivered.

The forceps is applied to the side of the head at the lower straight, but at the upper straight the forceps can not always be applied, on the side of the head, above the upper straight never. In applying the forceps at the lower straight care must be taken, that the blades do not extend below the chin, when the chin is posterior, or below the occiput if that is posterior, else there is great risk of lacerating the perineum with the extending portion. This is all I believe that I can say about the forceps, to the best of my knowledge. I know, that I have said much on this favorite branch of mine,

perhaps I have dwelt too minutely on some things and on others not minutely enough, perhaps I have over looked some important points allogether, and went on with some not so important, and might have continued it further, and said something on craniotomy, caesarean section asphyxia of the child etc etc. but the time will not grant me this pleasure, for my part I would not become tired atall in writing but every one knows that a diligent man, can spend a life time, in reading and writing on the different branches of medicine, for the sake of making himself acquainted with the details of it, and in conclusion,

I might add, that I know, this is but an inferior composition, which I hardly dare present, but the Gentlemen of the Faculty can rest assured, that I have tried my utmost, and with the greatest interest and desire of knowledge, to reproduce every thing as correctly as my memory and humble intellect permitted.

Edw. Borck jr

An
Inaugural Dissertation.
On
Luxation.
Submitted to the Examination
of the
Provost, Regents, & Faculty.
of Physic.
Of the University of Maryland.
For the
Degree of Doctor of Medicine
By
Thomas Newnam Booker.
of
Maryland.
1863.

Dislocation Or Luxation

This term is used to signify a removal or displacement of a bone from its proper and natural situation. This accident occurs only at the articulating surfaces and of the various kinds of joints. the ball and socket joint is the most liable to this injury, owing to its great extent of motion. Dislocation may result from two causes. viz exciting and predispo-

:osing causes. for instance in the latter case the joint may be diseased which would render it weak. probably some of the muscles are par alyzed or the ligaments have become elongated or an accumulation of fluids in a joint. all of which would assist and render the dislocation easy. Or we have the exciting causes such as external violence, blows, falls &c & limb may be in

such a position that a quick and unexpected blow would suddenly displace it.

We have three principle varieties of Luxation. Complete, Incomplete and compound. A dislocation is said to be complete when the bones have entirely lost their natural connexion, Incomplete when they partially preserve it. And Compound when a wound communicates with the

dislocated joint. Of the three, the latter is by far the most dangerous accident. It is accompanied often with fracture and laceration of some important blood vessels which render the reduction difficult and the subsequent results fearful.

The symptoms which characterize dislocation are swelling, severe pain and deformity. Hollows and eminences where none should be. Shortening or enlongation, and

loss of proper motion.

Dislocations are sometimes mistaken for fractures of bone and vice versa.

Yet they may be distinguished from each other by the following symptoms. In fracture we are very apt to have crepitus while in dislocation it is absent and in fractured bone the limb is generally shortened, when it is displaced it is often lengthened. and again if a dislocated bone be reduced it will remain so

But if a fractured bone is placed in its proper ~~place~~ situation and the extension discontinued the distortion will return

As regards the treatment of displaced bones, our first object is to relax the muscles which hold the bone in its new situation and endeavour to place it in such a position that the opposing muscles may assist in drawing it in its proper cavity. This is accomplished by

manoeuvring, abducting, rotating, extension and counterextension and the full use of chloroform to relax the muscles and diminish the severe pain which always attends this operation. The reduction should be attempted as soon as possible or the muscles would contract and keep the bone in its new position. After the reduction it is always best to employ leeches, fomentation and purging to prevent

inflamation which sometimes follows. The patient should be kept at rest untill the lacerated parts have had time to heal or the luxation may be constantly recurring.
We have thus far been speaking of the symptoms causes diagnosis and treatment of dislocation generally. we will now take up the consideration of particular Luxation
The first which demands our attention is.
Dislocation of the Lower

Jaw. This may be caused by a blow on the chin or spasmodic contraction of the pterygoid muscles while yawning. Either one or both condyles may be dislocate The symptoms are prevented articulation and deglutition. the mouth forces open the saliva trickles from the mouth, great pain. with a most horrible expression of countenance Treatment: The patient should be placed on a low stool. with his

head firmly supported against the wall. The surgeon standing in front shoulder presses his thumbs properly protected, upon the molar teeth at the same time elevating the fingers. The condyles are thus disengaged and return to their own sockets or a cork or two strong pieces of wood may be used in some cases. After the reduction the chin should be confined for a week or ten days with four tailed

bandage. Second

Dislocation of Clavicle

The sternal extremity may be dislocated either upwards or backwards. When upwards it approaches its fellow and is much more elevated than the acromial extremity. When backwards there is pain and a depression over the articulation and stiffness in the neck this may be caused by blows. The outer extremity may be displaced

upward on the acromion or as sometimes happens beneath it. It is usually the result of falls or blows. The symptoms are depression, pain and impeded motion. The treatment is in all respects the same as fractured clavicle.

"Dislocation of Shoulder."

This may occur in three directions. Inwards. Downwards. and Backwards. When the arm is dislocated inwards. the elbow stands out from the body. a

protuberance is felt under
the pectoralis muscle
and the limb is shortened
When it is displaced
down or into the axilla
the arm is lengthened
the elbow stands out
and cannot be made
touch the ribs. and the
head of the bone may
be felt in the axilla
This dislocation may be
mistaken for three frac-
tures. first of the acromion
second neck of the scapula
and third neck of the
humerus. when it is dis

-located backwards. the elbow projects forwards, there is a hollow beneath the acromion and the head of the bone may be felt on the dorsum scapulae. Violence and contraction of the deltoid latissimus dorsi. teres major. pectoralis major muscles are the causes of dislocation of the arm. or violently throwing the arm about.
Treatment. There are various methods of reducing dislocation of the

Shoulder-Joint. owing to the various ways they may be dislocated. for instance when the arm is dislocated inwards. the reduction may be accomplished by gentle traction, at the same supporting the shoulder But in the second or down into the axilla. the reduction is performed in or by five methods. first by simple extension. Second by extension with pulleys. third with the heel of the

surgeon in the axilla.
fourth. with the knee in
the axilla. this is by
far the best method
and is know to accom-
plish our object when
others have failed. the
patient being seated and
firmly fixed in a chair.
the surgeon standing
behind. places his knee
in the axilla with his
foot on the seat of the
chair. with one hand
on the shoulder over
the other holds of the
arm. depresses the elbow

untill the head of the bone is disengaged and the muscles will pull it in its socket. traction should at the same time be made by the assistant. the fifth method is that invented by Dr White. this is done by puting the patient in a horizontal position the surgeon sits behind with the scapula fixed he raises the arm from the side to the head. traction is then made till the bone is thus

elevated to its position
or socket.

Dislocation of the Elbow.
This dislocation may occur in six directions. first backwards, second backwards and outwards third backwards and inwards, fourth the ulna may alone be dislocated backwards, or radius backwards or fifth. backwards, sixth forwards. Each has its own characteristic deformity. attended with pain and swelling.

The treatment in the four first cases is nearly the same. Reduction may be accomplished or effected by supporting the humerus whilst the fore-arm is drawn forwards or the surgeon may forcibly bend the arm over his ~~arm~~ knee or forcibly straighten the arm. When the ulna is dislocated simply extending will reduce it. After reduction the joint should be kept at rest for a week or ten days then it should be exercised

in order to prevent angi-
losis. These dislocations may
be distinguished from
fracture of the same
by the absence of crepitus
and impaired mobility

"Dislocations of the Wrist."
Both bones of the fore
arm may be dislocated
or only one. This injury
is readily recognized
by the altered position
of the hand. which is
either thrown backwards
or forwards if both bones
is dislocated, twisted
if but one is removed.

The reduction may be accomplished by simple extension.

Dislocations of the Hand.

The bones of the hand are sometimes dislocated the os magnum, os cuneiform and os pisiforme for instance yet it is very rare always partial. Treatment is Cold, friction, support

Dislocation of the thumb and fingers sometimes occur. the are very difficult of reduction owing to the strength of the lateral ligaments and

side of the part from which traction is to be made. The reduction is accomplished by extension, traction and flection.

Dislocations of the Spine.

This accident rarely ever happens unless connected with fracture. it caused by hanging falls from a height or some crushing violence. Dislocation of the atlas may occasion instant death owing to pressure upon the spinal marrow. Treatment little or nothing can be done.

Dislocation of the Ribs.

These bone are sometime dislocated. But it is of rare occurrence. Either extremity is liable to the injury. This displacement is generally the result of falls and blows. They may be recognized by an eminence or depression where none should be. Together with the Ribs the Sternum is sometimes dislocated. in front of the Manubrium and the ensiform cartilage separated. The

treatment in these dislocations are or is the same as in fracture of the same bones.

Dislocation of the Hip Joint. This is generally a very serious accident and the result of severe violence such as jumping from a hight and falling on one foot. The femur may be dislocated in four different directions. First Dislocation upwards on the dorsum ilii. Second Dislocation backwards in the Sciatic

notch, Third Dislocation downwards into the foramen Ovale and Fourth dislocation forwards and upwards on the Os Pubis. Besides these there is some two or three others which are exceeding rare.

In the first or dislocation upwards which is by far the most frequent. The limb is some two or three inches shorter the toes rest upon the opposite instep, the trochanter is less prominent

is nearer the ilium and if there is no swelling the head of the bone can be felt in its new situation. Treatment The reduction should be attempted as soon after the accident as possible. In some cases the reduction may be accomplished by simple manoeuvring. When this fails we are compelled to resort to main force and chloriform. Such as Extension and Counter-extension This is effected

by placing folded sheets or towels in perinæum and around the leg. by gentle traction we may accomplish the reduction. Second or dislocation backwards in the Sciatic Notch. In this case the limb is an inch and a half shorter. the knee turned outwards. the trochanter is behind its natural position. Treatment The reduction is sometimes effected by flexion But usually main force

must be employed. place the patient on the sound side. support the perineum by sheet or large towel. well secured to the floor or bed post then draw the limb across the opposite thigh at the same time rotate it outwards. Third or Dislocation downwards into the foramen Ovale The limb is one or two inches longer. the toes point downwards and forwards and body bent forwards. Treatment

Our object is to disengage the bone from its new place and put it in such a position that the opposing muscles may assist in the reduction. We will first lay the patient on his back. secure the pelvis and with straps and pulleys so applied as to pull the thigh outwards. while the knee is at the same time pulled downwards and inwards. Fourth or

Dislocation upwards and forwards on the pubis. The limb is shortened. The foot points out=wards and the head of the bone can be felt below Poupart's ligament. In the reduction. Flexion sometimes accomplishes our object. Extension is to be made backwards and outwards at the same time raising the head of the bone over the rage of the acitabulum

Dislocation of the Femur

This dislocation is very

uncommon owing to the firmness of the joint. when it does occur. it is most always incomplete. Generally the Tibia is thrown backwards. It is characterized by deformity and impeded ~~rotation~~ rotation. The reduction is often effected by simple extension

Dislocation of the Patella

This bone may be displaced anteriorly or posteriorly and laterally either inwards or outwards, the latter the most common

Symptoms, The bone can be felt in its new situation. Also inability to bend the knee.
The reduction is not very difficult. Straighten the knee and raise the leg by means of the fingers and thumb.
It can readily be replaced. after the reduction place the leg in the anterior splint.
Dislocation of the Fibula.
Is of very infrequent occurrence. except in disease joint. Its treatment for

this Luxation the leg should be kept flexed

Dislocation of the Ankle.

This accident sometimes occurs. and is usually the result of severe violence such as jumps from a great heights or from a carriage or car when in motion. It is almost invariably accompanied with fracture of Tibia or Fibula or Both. This displacement may occur in four directions forwards, backwards. inwards and outwards

Symptoms In the dislocation of the Tibia inwards. the fibula is fractured and the sole of the foot turned outwards. Second In dislocation of the Tibia & Fibula outwards. the Malleolus is broken over the foot turned inwards. In the Dislocation forwards the foot shortened over the toes point downwards the dislocation has been named but it never occurs. Treatment, Reduction must be effected as soon as possible. Lay the

patient on his back with his body properly supported. The surgeon grasps the instep with one hand and the heel with the other and makes traction in this way till the natural form and shape is restored. After reduction put the patient in the Anterior Splint. Chloroform may be administered and opium in regular doses afterwards

Dislocation of the Foot.

The most frequent and

important of these dislocations is the astragalus. which is sometimes separated from its connections. It may be displaced either forward or backward. The reduction is to be effected by the general mechanical means. if this fails amputation must be performed.

An
Inaugural Dissertation
on
Endocarditis,
Submitted to the examination
of
The Provost, Regents and
Faculty of Physic,
of the
University of Maryland,
for the
Degree of Doctor of Medicine.
by
Chas. H. Goldsborough
of
Maryland.
1863.

Endocarditis is inflammation of the interior or lining membrane of the heart. For much of what is known of the disease, we are indebted to M. Bouillaud. Others were aware of the fact that the outer surface of the heart is sometimes the seat of inflammation but the frequency of the affection, its chronic origin in most cases, and its fatal influence on the development of organic changes on the heart, were first clearly ascertained by the author mentioned.

Anatomical Characters

Inflammation leaves behind it, in the internal membrane of

heart much less prominent characters than in the external. The reason of this is obvious. Coagulated fibrin, serum, and pus, the ordinary results and evidence of inflammation are in this affection generally carried away from the diseased surface, as fast as thrown out or generated, by the incessant current of the blood. Hence, perhaps it was that endocarditis so frequently escaped the notice of pathological anatomists. Deposits in hearts or patches gradually falling into the general line of the membrane, may be observed more especially about or

for the aortic valves and not infrequently extending into the aorta. The reddened membrane is often thickened, is sometimes also softened, and occasionally presents roughness, inequality, or a whitish opacity of the surface, consequent on the exudation of fibrin into its substance or beneath it. Concrete fibrinous matter, notwithstanding the current of blood, may generally be found in small quantities either adhering to the valves and the membrane in their neighbourhood, or entangled in the meshes of the columnæ carneæ

Sometimes it exists in the form of a filmy layer, but more frequently in granulations from the size of a small shot to that of a pea. These granulations are either of crude lymph, or in various stages of organization and are supposed to be the origin of fungous or warty excrescences, called vegetations, which have often been observed in the same position. On the mitral-ventricular valves, the exudation is arranged either in the shape of striations upon the free edge of the laminae, or in a continuous line near it. In more advanced cases, the laminae

of the valves are sometimes seen adhering to the surface of the heart, sometimes to one another by their edges; causing in the former instance imperfect closure, and in the latter more or less obstruction. The valves are liable to be puckered up and in various degrees distorted. Another source of embarrassment to the circulation in endocarditis is the formation of fibrinous coagula directly from the blood which are supposed to contract adhesions to the lining membrane, it may accidentally rough or prominent point, and may be seen hanging out

the fleshy column and valvular tendons. It is believed that the fibrinous albumen exudation which takes place in acute inflammation of the endocardium is sometimes converted, in protracted cases, into dense, fibrous, cartilaginous, or bony structure, and thus produces permanent disease of the valves. Sometimes patches of a similar exudation upon the surface of the membrane become organized, and occasion whitish opaque spots capable of being detached by dissection, without affecting the integrity of the membrane.

General Symptoms

At an early period, before the valves are much affected there may be frank febrile fever with a strong, full and excited pulse, without being extraordinarily frequent. There is no fixed ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ when there is severe pain, unless the affection is complicated with pericarditis or pleurisy. According to some authors endocarditis is never painful. When the valves have become much thickened or in other ways deranged a new and alarming train of symptoms

[illegible]. The pulse often varies from [illegible] in a minute, and is extremely small and feeble. It is often also unequal and irregular, with occasional intermissions, which are not dependent upon the cardiac pulsations, but upon a deficiency in the quantity of blood expelled from the ventricle. Another condition of the pulse sometimes observed, which is connected with the existence of regurgitation through the aortic valve, the impulse produced by the systole of the ventricle is propagated to the radial artery with unimpaired force; but this is not sustained as in

length by the entire effect of the elastic contraction of the aorta which is now partly extended in a backward direction. Various other symptoms result from the altered movement of the blood in the heart. They proceed from two distinct sources, namely, from a deficient supply of arterial blood to the system at large, and from congestion of the venous blood. The same causes which impede the onward movement of the arterial blood, occasion an accumulation of the venous blood behind; whence ensues congestion in the right cavities, or the

lungs and in the great venous trunks, and indeed in all the great organs, and to a certain extent in the whole venous system. There is then great debility, fainting sometimes amounting to syncope and a most distressing sense of impending suffocation.

Physical Signs.

Early in the disease the impulse of the heart is felt more strongly, and to a greater extent over the chest, than in health; and this strong impulse often continues after the pulse has become small and weak. Strength however,

the muscular power of the organ is exhausted, and the impulse becomes feeble. There is usually a greater extent of dullness than in health, sometimes over twice as great a space. This is probably owing to a distension of the cavities by the accumulated blood. But incomparably the most valuable sign is the bellows murmur. This is usually preceded on a prolongation of the first sound, and, when combined with symptoms of an acute febrile disease, uneasiness in the praecordia, palpitation, and a frequent small pulse all occurring in a person previously

in good health, may be considered as quite characteristic of endocarditis. If rheumatism exist at the same time, there can scarcely be a doubt as to the nature of the complaint. The causes of the murmur are from partial obstruction or defective closure of the valvular orifices, or from both causes conjoined. There is reason to believe that a spasmodic contraction of the columnae carneae, attached to the auricular ventricular valves, may sometimes contribute to the production of the sound by preventing a closure of the orifices during the systole

of the ventricle. The murmur is sometimes soft, sometimes in various degrees rough or harsh, and sometimes ~~in various~~ musical. It is occasionally so powerful as entirely to mask the ordinary sounds. In the great majority of cases the murmurs have their origin in the left cavities of the heart, which may therefore be considered as the most frequent seat of endocarditis, the aortic and mitral valves are simultaneously affected in by far the greater number of cases and, when they are separately affected, ~~and~~ the mitral is much more apt to

suffer the aortic. This affection may therefore be associated with pericarditis.

Causes.

Occasionally endocarditis occurs as an original affection; but it is much oftener an accompaniment or the result of other diseases. The complaint which it is most usually associated with is acute rheumatism. The cause of this association is probably, in part, the intervention only of a little fibrous matter in certain parts of the heart, especially in the vicinity of the valves, between the external and internal

membranes thus allowing a ready communication of disease from one to the other; but it is probable also that both are often simultaneously attacked in consequence of their equal susceptibility to rheumatic inflammation, just as two joints suffer at the same time. Pleurisy and pneumonia are sometimes accompanied with endocarditis; and some of the worst cases of the disease occur as a consequence of phlebitis, the inflammation being propagated directly along the lining membrane of the veins to the heart.

Mechanical causes especially lead to induce the interior than the exterior inflammation; cases of endocarditis are said to have arisen from paroxysms of violent coughing, and from violent muscular efforts, producing a rupture of the valves. The presence of urea in the blood is supposed to occasion the several cardiac inflammations, which are not unfrequently attendant on disease of the kidneys, interfering with the excretion of that principle from the circulation.

Prognosis.

Endocarditis generally ends in recovery if not complicated with pleurisy, or pneumonia &c. Under proper treatment in the early stages, it may usually be brought to a favorable issue in a week or less. The cessation of the valvular murmurs is important as an indication of perfect cure. Should these remain after the subsidence of the febrile symptoms, they must be regarded with solicitude, as indicative of confirmed derangement of the valves: unless, indeed, they may

be accounted for by the existence of anæmia. Violent cases, especially those of a complicated character, sometimes end in death in a few days. Extreme frequency, smallness, fullness, and irregularity of pulse, violent palpitations, distressing dyspnœa, and syncope are a frequent finding be it are unfavorable symptoms. The worst result of endocarditis is chronic alteration of the valves. It does not follow, however, that cases in which the bellows murmur remains, after the disappearance of the acute symptoms, will necessarily

be attended with permanent valvular disease. On the contrary the exuded lymph is often gradually absorbed or dissolved in the blood, and ends in perfect recovery. But sometimes it is otherwise; and the permanent embarrassment of the circulation consequent upon the valvular disorgement, leads ultimately to the most fatal lesions, such as hypertrophy and dilatation, and all their terrible consequences. Neglected rheumatism is apt to have this termination. There is reason to believe that the disease occasionally sets in another

and before scarcely suspected mode, in producing serious lesions in the brain. Portions of the fibrinous deposits or exudations, as the case may be, detaching themselves from the valves or surface of the heart, appear to be carried with the current of blood, and are sometimes of sufficient size to block up arteries of considerable magnitude, and thus give rise, in the parts to which the obstructed vessel is distributed to all the consequences of a defective supply of blood. Softening of the brain and hemiplegia

have resulted from the same

Treatment

It is probably more important in this disease than in pericarditis to have early recourse to the lancet and mercury. An important point in the treatment of endo-carditis is not to consider your patient safe, so long as the fever continues, and hence the propriety of continued watchfulness in most cases. To produce absorption or solution of the effused lymph, and in the mean time to control the excessive action of the heart, are the prominent

indications; and these are to be met by the passing, but at the same time very cautious use of mercury or the alkalies and digitalis. These may be continued for many months if requisite with occasional intermissions, care being taken never to push the mercurial influence beyond the slightest observable effect upon the gums. The preparations of iodine may also be employed with the same view. Rest, low diet, and mental quietude are important auxiliaries. But another caution of very great

importance, is that you should not mistake the bellows murmur of anæmia for that organic valvular disease; for in anæmia, mercury would be injurious and an invigorating instead of a reducing regimen is necessary. It is also important that, in the treatment of chronic endocarditis you should not carry depletion to a point calculated to produce anæmia. Much judgment and prudence are often necessary to enable you to steer a correct course between these difficulties.

1863

An
Inaugural Dissertation
on
Opium,
submitted to the examination
of the
Provost Regents
and
Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
J. J. Geiger.

Opium.

It is not the object of the author of this cursorily written production to attempt to unveil to the medical fraternity, anything unknown concerning the merits, and demerits of Opium. His aim is chiefly to vindicate to some extent what may have already received publicity; together with what most knowledge he himself, is so familiar to all that concerns the drug, on the of alteration.

It would be an unnecessary repetition of much that is already been said of the origin of Opium, were the writer to enter into a detailed account of the source from which the article under consideration has generally

been obtained. Moreover it might prove tedious to persons well acquainted with the concrete juice of the papaver somniferum, were he to attempt an elaborate and minute description of everything that has reference to its uses and abuses.

The writer consequently proposes merely naming some of the sources from whence Opium is obtained and as before observed, intends disclosing part of what little knowledge he himself possesses of the method of preparing Opium when judiciously ~~manufactured~~ employed, and also has in view the detailing to some extent the fearful some of its homicidal powers when improperly made use of.

It is not within the scope of human ken

to render the medical world, or any portion of it, interested in the history of Opium, capable of affirming at what precise period this important therapeutic agent first received the distinction of a medicine.

It is however declared to have been known, and perhaps used, from the earliest periods of Grecian history. Although, at that early period much less was known of its properties than what is now within the knowledge of the present generation. In a climate conducive to consequent secretion power of the ancients; much to be envied by subsequent generations; did not so much require the use of the article, and consequently they did not cultivate as extensive and exquisite a knowledge of this important & valuable

part of therapeutics as is indispensable required of modern generations.

Among the numerous sources from which opium is obtained, the following are most worthy of mention:- Hindoostan, Anatolia Asia Minor, and Egypt. But the Turkish, including that obtained from Smyrna, and that from Constantinople, and the Egyptian are varieties much more prized than the products from any other source. Hence the article under consideration, in common with many other medicinal agents, possessing a number of varieties, and as rule of an equal contrariety of effects, should be employed, varying in their strength

and, unless stale, so that you would not have a difficulty in deciding upon a fixed, or uniform dose.

Opium in common with other officinal preparations derived from the vegetable kingdom, is a complex substance. The most essential principles in its composition are, narcotine, codeia, thebaia, or paramorphia, papaverina, and opianic.

These are principally alkaline, namely narcotin, meconin, and morphogenin are neutral. Meconic acid, and a sui generis odorous principle are also worthy of mention.

Besides a variety of less important principles renders Opium more complex in its character. Gum, albumen, resin, fixed oil, lignin, caoutchouc, &c.

among the number. The greater the latter enter into the composition of Opium, the less the quantity of important ingredients is to be discovered, and vice versa. The more morphia; the better the quality of the Opium. This unquestionably explains the reason why Opium, derived from certain portions of the Globe, is much more to be preferred to that which is obtained from different parts of the world.

The hopeful anticipations, attendant upon the efforts, to cultivate the opium poppy somniferum, in those sections of the world where it is not indigenous are but partly if at all realized.

The article consequently is inferior

from such oriental parts, from whence the best variety can be obtained.
The effects of Opium upon the human system, like all substances used for medical purposes, have a primary and secondary operation, a direct and an indirect action — both being diametrically opposite. The contrariety of these two influences upon the human frame, is much more marked by Opium, than by the primary & secondary effects of a majority of the remaining number of therapeutic agents. The first or direct influence, upon the system, is the one sought after not only where the therapeutic value of the drug is desired; but the habitual Opium

eaten swallows enormous quantities at short intervals, in order to create its indirect influence.

The action of Opium, primarily, upon the Nervous System, as well as, upon most other portions of the body, is, as before intimated, of a stimulant character.

The power it exerts upon this portion of the body, is undoubtedly greater, than is its action, upon any other, either of the human frame; and much of its influence, upon the important organs, than the circulation, is through its action upon the latter.

Opium is justly classed among the cerebral stimulants. It has not the immediate exhilarating effects, which

alcoholic spirits fogeys, but when its influence, is once established, it is much more prolonged, and assumes a much less maniacal character, than the former stimulant. Seldom are hallucinations, fantastic imaginations and ridiculous actions to be observed from the effect of Opium upon the system. The reverse obtains however of ardent spirits. The mental faculties, on the other hand, instead of being perverted, are raised to their highest point of function. Whilst labouring under the primary stage of Opium, strong characters are before with brighter and better ideas. The Orator uses an eloquence, with more ease, & of character

far exceeding the result of his public efforts. The pleas which the lawyer, urges before a court of justice, in behalf of an unfortunate culprit, do not so ill compare with the arguments of a Bradford, a Blackstone, or a Kent. The poet's highest fancies & deepest feelings, are equally acted upon, in a similar manner. And only a Mozart, or Beethoven, or such others as approach to a similar degree of attainment in music, are superior, in having more exalted ideas, in so far as the concordance of sounds effect him, than the opiophagi, when he is enjoying the primary, or stimulating influence of opium. Corresponding to this emotional excitation, an increased muscular energy

is cooperative. The ability to bear physical exertion, to undergo deprivations, and particularly to sustain the deleterious action of cold, is surprisingly augmented.

Although as before observed, Opium ranks among the category of cerebral stimulants, yet its action upon the system, is, in many respects, different from other substances, placed in the same list, and in some instances quite opposite. An Opium eater is devoid of that excite feeling; those sensual lusts, which not only are found to a great degree in persons addicted to a great extent, to Ardent drunkenness, but are even found in not a small number of persons priding themselves

of their exemplary sobriety. His folly lies at most in his imagination, which under the exhilarating influence of Opium, a corresponding extent of misery which is beyond the power of the human intellect to describe, and much more out of reach of remedial measures to overcome, is the result of its sedative action upon the system.

The stomach is the recipient of much of the evils arising from the habitual or prolonged use of Opium. Shortly after the admission of a full or tolerably large dose, this important organ becomes slightly excited but this condition only lasts, a short time, to be succeeded by a marked

opposite condition. In anorexia, the impaired condition of the digestive functions, which glycosuria, may possibly be attributable to the power Opium possesses in suppressing the secretion.

A diminution in the proper quantity of gastric juice, may perhaps account for the anorexia and other disorders of the chylopoietic viscera. Its stimulant action upon the mucous coats may also have much to do with its effects upon the stomach. The flux of bile is at first as a general rule suppressed; but the reaction of the remedy upon the hepatic function is in some cases, so great, as to produce [illegible]

bilious vomiting, and purging.

Constipation is almost a constant attendant upon the use of Opium. The suppression of the functions of the liver to a certain degree, as well as that of the pancreas together with the diminished secretion of mucous, may to some extent, account for this abnormal condition.

The urinary organs are variously affected. In some individuals it acts as a diaphoretic. But in the majority of instances the normal quantity of urine, is greatly lacking; besides this is not unfrequently a difficulty of micturition accompanying this

renal derangement. Its action upon the skin corresponds with its effects upon the secretory organs. The cutaneous surface under its direct influence, becomes dry & seldom is perspiration to be observed in persons under the stimulating operation of Opium.

The mouth, nostrils and fauces participate in this want of moisture, and so the bronchial secretion is diminished. Profuse sweating, however, is a constant attendant upon any attempt that an inveterate Opium eater makes to relinquish the habit, no matter how low the temperature of the atmosphere may be.

An immediate effect of Opium upon the skin worthy of notice, is the itching it produces upon any, or all parts of the body. This distressing symptom, attendant upon its exhilarating action, is very annoying, and in many cases actually prevents the patient from enjoying his nocturnal repose.

A miliaria or sphemalias, or urticaria eruption, has been observed by some writers, by which they account for the cutaneous distress before observed. But the insufferable irritation of the dermal structure, is seldom productive of any eruption, so far as the experience and observation of the writer extends; and if the alledged cutaneous affection,

actually exist, during the use, or abuse of Opium, their presence might more properly be attributable to some other cause.

The therapeutic applications of Opium are extremely various, and the extent of its employment exceeds that of the majority of medicines. There are few diseases to which human flesh is heir, but what present indications for its administration, and few pathological affections exist but what Opium is the chief if not the sole agent called into requisition.

By virtue of its direct stimulant influence upon the cerebro centres it is specially indicated — diseases

having a typhoid character. The depressed state of the brain, indicated by stupor, delirium, low mutterings and prostration, is not a contra-indication; such a pathological state is owing to debility of the nervous centres and being a central stimulant, Opium would not be improperly called for.

The use of this medical agent, is still more appreciated in fevers, when we take into consideration its power in suppressing those morbid, and debilitating discharges attendant upon a typhoid state.

In insanity, Opium is properly brought into requisition, and in delirium tremens it is absolutely indispensable. In tissues it is almost invariably employed. But in the last three named diseases, the quantities

given must be enormous, and frequently repeated. and in the majority of instances the amount given must be alarmingly great, and then, often produces but a temporary and moderate influence.

The anodyne power of Opium, ranks among the most important part of its action. Indeed, as a palliative in neuralgic affections it cannot be surpassed, and stands first upon the category. In gastralgia it is the first remedy prescribed. Spasmodic cholic, as well as pain of all kinds to which the digestive organs are subject yields readily to the action of Opium. The violent pain attendant upon the passage of a biliary calculus, as well as the pain consequent upon the passing

of a similar product through the intestines, is readily overcome, by the anodyne influence of Opium.

Its surprising efficacy in suppressing morbid discharges, renders Opium of vast utility, in diseases which are characterized by a deranged state of the excretory or secretory organs.

Its control over these functions is so great that its administration is often attended with delirious results. In such forms of symptomatic diarrhoea which are often found to be the distinct affection Opium would be contra indicated. Among other forms of disease occasioned by injurious excretions would forbid its administration on account of the

danger attendant upon the retention of the morbid matter, which Nature unassisted, would herself expel.

Opium is frequently used in conjunction with other remedies. It is often given in combination with ipecacuanha, calomel, camphor, and use with a number of other important medicaments. The object is mainly to prevent the active operation of medicine thus combined. A preparation with soap, possesses the advantage, that, Opium may be administered without a knowledge of the patient; when through prejudice he would object to the remedy. So numerous are the pathological phenomena to which Opium is applied,

that the writer lacks space to enumerate all the uses of the drug.

Occasionally, through a misunderstanding of the physician's directions; or with a view to suicide, Opium has been taken in such enormous quantities as to speedily prove fatal. Under an excessive quantity of Opium, drowsiness is at once produced which is followed by a heavy sleep, succeeded, if not interfered with, by stupor. The respiration is slow and stertorous; in this stage there is little that differs from healthy sleep; but as the increased action of Opium supervenes, there appears more dangerous, and alarming phenomena.

An inability to rouse the individuals

a purplish hue of the countenance, and a want of expression ensues; and if active measures are not immediately employed, death is inevitable. The latter is preceded by a more profound coma, a pallid countenance and a marked relaxation of the skin — the breathing becomes so slow, that it appears at times to be permanently suspended, and efforts must be constantly made to arouse the unhappy being, in order to raise the flagging state of the lungs. But in this late stage few recoveries are accomplished. The victim sinks into a deep coma, and when the most powerful means are employed

to rouse him; seldom, are more than a vague, idiotic stare, and a slight degree of uneasiness the result, after which he relapses into a comatose state, attended by great prostration, cold clammy sweat total relaxation of the body, frothy mucous exuding from the mouth, and final dissolution.

The post-mortem appearances consist in congestion and serous effusion of the brain - pulmonary congestion, and a liquid state of the blood. No organic lesions are discoverable.

The fluid preparations act more speedily, than does solid opium; but their topical effects are much easier counteracted, than those of the

crude preparation. Emetics, in poisoning by laudanum, act with more certainty: the use of the stomach pump can be more advantageously made use of: whereas poisoning by Opium en masse, requires powerful doses of the most energetic emetics: Besides the employment of the stomach pump can seldom be relied on: the quantities swallowed, if sufficiently large to destroy life are seldom small enough to enter the tube. Tartar emetic is one of the chief remedies used to evacuate the stomach; but its irritating effects render the use of sulphate of zinc and ipecacuanha preferable. The means to antidote the evil effects of an emetic

quantity of Opium, taken at one time, consist first in the producing emesis. After the poison is completely ejected, attention must be paid to the indirect effects. An alarming degree of prostration is frequently the result of the latter, which requires the employment of stimulants. To qualify the ill effects of Opium coffee, vinegar and belladonna are too called into requisition. But before the poison is completely ejected from the stomach, much fluid should not be swallowed, as it certainly hastens absorption of the poison. The antidotal powers of vinegar in the toxical effects of Opium, cannot be relied on to a great

extent. Indeed it is the opinion of some practitioners, that it can eradicate the most alarming symptoms of Opium poisoning. Belladonna is often employed with admirable success. Caution must however be observed in its administration; the quantity given, and the precise period of its exhibition, must be carefully taken into consideration. Paracelsus's galvanism are among the numerous other means employed to counteract the intoxicating action of Opium. They have doubtless been frequently used with happy success, but, have as often failed in themselves to restore the sinking

energies, and rouse the depressed state of the system to its normal degree of vitality. It has been affirmed & perhaps very truly that there is no antidote to Opium which can confidently be relied upon, and frequently all the resources within the grasp of the physician not only fail to restore life, but even refuse to prove facilitive in their action.

Although much can be said of the value of Opium as a therapeutic agent, in addition to what has already been mentioned, yet on the other hand almost as much evil can be produced from its habitual use, as can be said

in its favor. Opium eating or the continued habit of taking any of its preparations, principally arises from an insufficiency of its stimulating qualities; or it is incessantly resorted to in order to ward off pain. Diseases of a neuralgic character most frequently produce the use of Opium eating to an incalculable extent, particularly when such affections have assumed a chronic form — even after those disorders to which the use of it is attributable have ceased to exist the habit is frequently persisted in.

But the exhilarating, or stimulating action of Opium, as its use is prolonged, becomes less powerful & its duration shorter. The reverse obtains known of its

sedative, or debilitating tendency. Hence the quantities taken must necessarily be progressively augmented, and taken at shorter intervals to produce not only its primary effects, but to prevent its secondary influence — consequently in many instances an enormous quantity sufficient to destroy the lives of several men, must be taken at one time in order to raise the sinking energies to their normal degree of stimulation. But the end, at last, succumbs to the irremediable effects of this baneful habit. The unhappy invalid becomes attenuated in flesh. He, moreover, presents a jaundiced yellow countenance. His sunken eyes bear a

languid, tired expression. A round of pimples; an impaired condition of the gastric and hepatic functions; together with obstinate constipation, add to the inexpressible anguish, the inveterate Opiophagi experience.

Nor are physical sufferings alone the penalty of this baneful evil. The mental functions are equally the recipients of the derangement consequent upon the protracted abuse of Opium. Ennui, or mental lepetude, weakness of intellect causing an indisposition to perform mental labor, loss of memory; and when the baneful evil approaches its last stage of action, total imbecility, complete loss of self respect, defiance of public opinion, and, not unfrequently, a fatuitous state of

dementia precedes final & inevitable dissolution.

In addition to the innumerable bodily infirmities, consequent upon a prolonged habit of using Opium the unfortunate valetudinarian, suffers also from the censure, contempt, and scorn of a cold unsympathising world.

At the hospitable, inebriate, the inveterate Laudanum drinker as well as individuals visited by similar misfortunes, have doubtless remarked a persecuting disposition, existing, throughout all animated Nature. "There is a feeling in nature, Sir Walter Scott observes, effecting the instinct of dumb animals. The very deer will butt a sick or wounded buck from the herd,

Hurt a dog, and the whole kennel will fall on him and worry him. Fishes devour their own kind when they are wounded with a shear; cut a crows wing, or break its leg, the others will buffet it to death."

When this suicidal practice has become confirmed, it is almost impossible to break it off. When essaying to abandon the vice, the torments, of the inveterate Opium-eater, far exceed the small amount of pleasure, he usually derives from the stimulant action of the accustomed dose; and all the untold misery following any effort to abjure Opium is not only greater, than he at first anticipated; but is much more prolonged in its duration.

His extreme suffering, together with his ardent desire for returned health often calls to his mind the truth of the adage: "Non est vivere, sed valere, vita." But often his self command, his ambition, and his fortitude which have been materially weakened by the action of Opium, are apt to fail before the vice can be completely conquered. In vain he resorts to remedial measures — in vain are his efforts to relinquish the evil, by perusing the recorded experience of older Opium-eaters, and the baleful and celestial effects of Opium, as related by Thomas de Quincey only prove to him the fact:

"That those eat now who never ate before;
And those who always ate never at themselves"

Under such circumstances the unfortunate invalid, in the majority of instances, relapses into his former vice, and persists in the evil throughout a long course of incredible suffering, until death comes to his relief.

[illegible]

[illegible]

Submitted,

To the Examination of the

[illegible]

and

Faculty of Theses,

of the

University of Maryland.

for the

Degree of Doctor of Medicine,

by

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

described the disease.

Although no doubt it was
known by practical men
from the earliest dawn
of [illegible]
[illegible]
[illegible]
[illegible]
may be best described
by [illegible] a person in
the [illegible]
is usually seized whilst
taking exercise and
especially if he walk soon
after eating [illegible]
[illegible]
[illegible]
with a most [illegible]
[illegible]
about the middle of the

Shannon and lies on
the left side. He is
often in a violent [illegible]
as a bright, pressure [illegible]
Shivering, dull [illegible] burning
[illegible]
[illegible]
[illegible], that death must
[illegible] the [illegible]
[illegible]
[illegible]
[illegible] is not [illegible] known
for the breathing [illegible]
and [illegible]
His eyes have a [illegible]
[illegible]
[illegible]
His face is pale and
bears a [illegible] expression
[illegible], his body is covered
with a cold sweat and
he [illegible] of the
disease, [illegible]

intermittent [illegible] in

still death some [illegible]

ment. Most generally after

this subsides the [illegible]

symptoms [illegible] an[illegible]

sometimes gradually or

suddenly recovers from

the paroxysm and resumes

his former feelings. Although

in such cases are [illegible]

[illegible] [illegible] have

been fatal during the

[illegible].

The pain is [illegible]

[illegible] [illegible]

[illegible] but [illegible]

off to about the insertion

of the deltoid muscle

[illegible] the [illegible]

the elbow and wrist

[illegible] [illegible]

the [illegible] [illegible]

a [illegible] [illegible]

[illegible]

[illegible] [illegible], [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

feeble sometimes strange,

[illegible]

not an instrument accom

paniment as a harpsom.

In many of the best [illegible]

[illegible]

Elevation is totally [illegible]

[illegible]

ding to published statistics

to be much more prone to

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of [illegible]

[illegible] this disease [illegible]

it attacks [illegible] [illegible]

[illegible]

[illegible]

[illegible] attack [illegible]

[illegible]

[illegible]

[illegible] to [illegible]

[illegible]

The causes of [illegible]

[illegible]

[illegible]

[illegible]

The flow of blood, [illegible]

[illegible]

[illegible]

[illegible]

[illegible]
when the phenomena has
been brought on by the lash
of a whip [illegible] it has been
[illegible]
taking place a slight
swelling in the [illegible] of
the head, or the appendages
the more [illegible]
at the wind [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
In [illegible]
[illegible]
[illegible]
limits as to suffer a
paroxysm from the most
[illegible]
[illegible]
[illegible]

[illegible]
[illegible]
[illegible]
[illegible] may be
sied with these distressing
[illegible]
[illegible]
no palpable cause; for
instance a [illegible]
frequently when a sleep
may be attacked or
[illegible] of a
light [illegible]; in such
cases we can but say
the extreme sensibility
is the cause. Since patients
[illegible]
[illegible]
the sudden [illegible]
[illegible]
[illegible]

heart being capable of
[illegible] upon the [illegible] of the
[illegible] signal. [illegible] can
[illegible] the best [illegible]
from the condition of the
heart during life [illegible]
[illegible] by the use of the stethoscope, and also by the [illegible]
of the [illegible] [illegible] the
fatal [illegible]. In
a [illegible] of these [illegible]
[illegible] have been found
great [illegible] [illegible]
in the heart, in one of
the auricles [illegible] of
the [illegible] [illegible] through the
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Will a view of remarkable [illegible] strikes Statements which cling the seat of pain and [illegible] [illegible] [illegible] [illegible] manifestations of [illegible] [illegible] [illegible] [illegible]

[illegible]
vide the affections of the [illegible]
[illegible]
[illegible] on the brain [illegible]
[illegible] and [illegible]
[illegible] complication [illegible]
[illegible] diseased state of the
vascular system
As we stated previously,
the male sex are most
liable to this disease, also
after fifty years of age
and during [illegible] -
sity of labour. Obesity, this
being united indeed
some writers have asserted
that this [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
and [illegible] stimulants
this [illegible] of disease.

Fallen arms tend to be
treated as the class of
Cases existing between
Insanity and Crime, he should
[illegible]
[illegible] the [illegible]
[illegible] attention
[illegible]
subject. But from [illegible]
[illegible]
[illegible] constitutional disorder [illegible]
in [illegible].

[illegible] attention to the [illegible] proceeding however shall the prognosis of this disease
[illegible] complaint from its
complications with lesions
of the brain [illegible]
[illegible]
a disease [illegible]

without character [illegible]
treat it as the [illegible]
3rd during [illegible]
2nd [illegible]
[illegible]
[illegible] question
as to the treatment of the
[illegible] it
[illegible] that this disease arises
under various [illegible]
[illegible] the system, or of the
also differ very considerably
as to the [illegible] causes [illegible] conditions of
the parts affected.
As all practitioners [illegible]
the [illegible] should [illegible]
[illegible]
of the case. The [illegible] late
[illegible] [illegible] patient is
[illegible] [illegible] [illegible]

in another [illegible]
been [illegible] treated [illegible]
serious disease the [illegible]
also being in a [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
fication of treatment to
suit it to each individual
case. The want of precision
[illegible]
in that of the practition
[illegible] unfrequently
[illegible]
in treatment of [illegible]
[illegible]
admitted that it is also
very difficult if not im
possible to convince [illegible]
[illegible]
[illegible] condition [illegible]

Possessing a previous know-
ledge of the patient, and
still more having had
opportunities of studying
[illegible]
is [illegible] at the [illegible]
Stramonius have been [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
proof of the [illegible]
paroxysm I believe has
been [illegible]
[illegible]
only tend to mitigate an
attack, they may be used
with some benefit [illegible]
[illegible]
[illegible]
[illegible]

of the Epithem and
[illegible]
[illegible] plaster.
Antispasmodics, Cordials and
Carminatives are also of
[illegible] value. They are
been tendered with much
[illegible] success than [illegible]
It is said they [illegible] the
virtues [illegible] especially in those
[illegible] have been [illegible]
[illegible] and [illegible]
[illegible] of Dispatial [illegible]
[illegible] the [illegible] be
[illegible] [illegible] so as to [illegible]
the blood by [illegible] it [illegible]
oppressed. For a again it
may simply invigorate the
stomach so as to enable
it to expel the plaster
[illegible]

limits child a pleasant state of the vascular system & mean. Should be resorted to [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] benefit or even safety. In most cases where venesection has been employed and particularly if carried to any extent [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

It may [illegible] [illegible]
[illegible] may be administered
as a stimulant to the ner-
vous system [illegible] much benefit
[illegible]
[illegible]
[illegible] it [illegible]
slight [illegible]
[illegible] in the system
I shall now beg leave to
call your attention to the
treatment [illegible] the [illegible]
The practitioner should be
acquainted with the early
history of the disease and
[illegible] it [illegible]
present stage of the disease
such it will greatly enable
[illegible]
[illegible]
[illegible]
judgement respecting the
condition of the body

or in point of fact he
should endeavour to ascer-
tain the [illegible] of [illegible]
when there is great plethora
or the patient is suffering
of a gouty diathesis in
first to relieve the overloaded
vessels and secondly to
prevent the [illegible]
[illegible] [illegible]
[illegible] is [illegible]
and of purgative. Venesection
[illegible] are most generally [illegible]
employed in all such cases
[illegible] [illegible] of Dublin highly recommends
the employment of [illegible]
[illegible] in [illegible] [illegible]
[illegible] [illegible] [illegible]
cases which he made use
of [illegible] [illegible]
perfect success.

[illegible] applied directly
[illegible]
[illegible] said to be of great
value. The most important
part of the treatment of
[illegible], is to avoid over
[illegible]
a paroxysm. Great attention
must be paid to the diet
of the patient, such as
[illegible], instead of Sila water
the [illegible] of Tea and [illegible]
[illegible]
It is useless to speak of
the [illegible]
that has been resisted by
the treatment of
Malaria